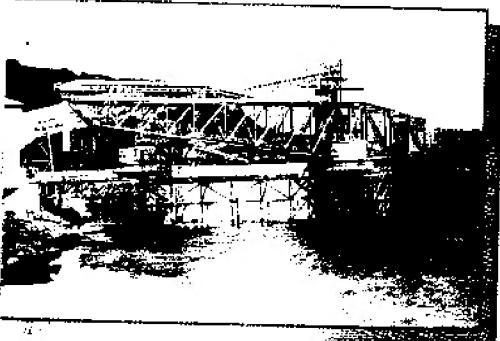


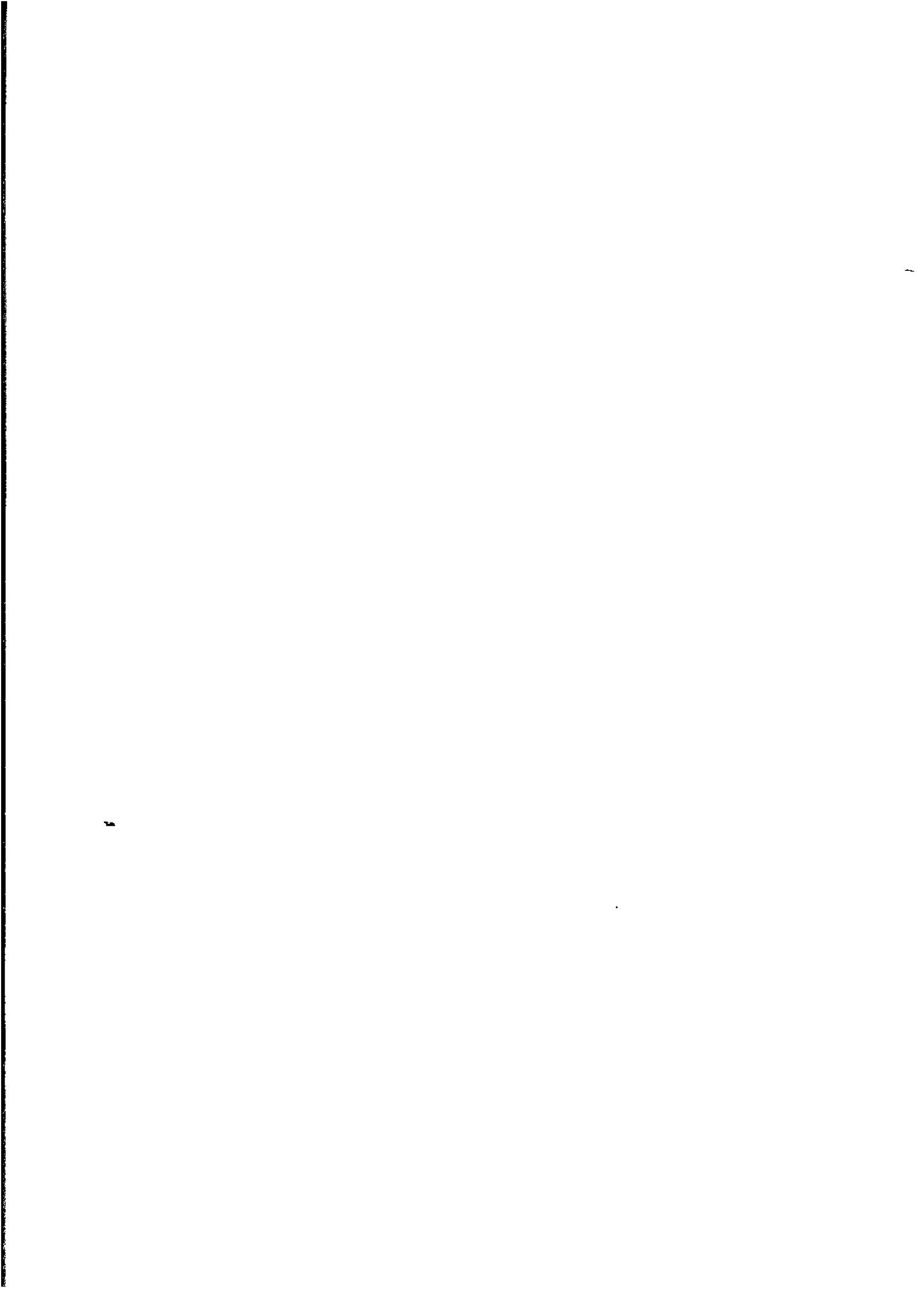


1985

# Spending and Income

## Christmas Island and the Cocos (Keeling) Islands





EMBARGO: 11:30 AM (CANBERRA TIME) FRI 20 DEC 1996

**SPENDING AND INCOME  
CHRISTMAS ISLAND AND THE COCOS (KEELING) ISLANDS  
SEPTEMBER 1995**

*A comparative study of the differences in costs between  
Christmas Island, the Cocos (Keeling) Islands and Perth*

P. C. Kelly  
Regional Director  
Western Australia

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- INQUIRIES :**
- *for further information about statistics in this publication and the availability of related statistics, contact Wayne Rikkers on (09) 360 5323 or any ABS State office.*
  - *for information about other ABS statistics and services, please refer to the back page of this publication.*

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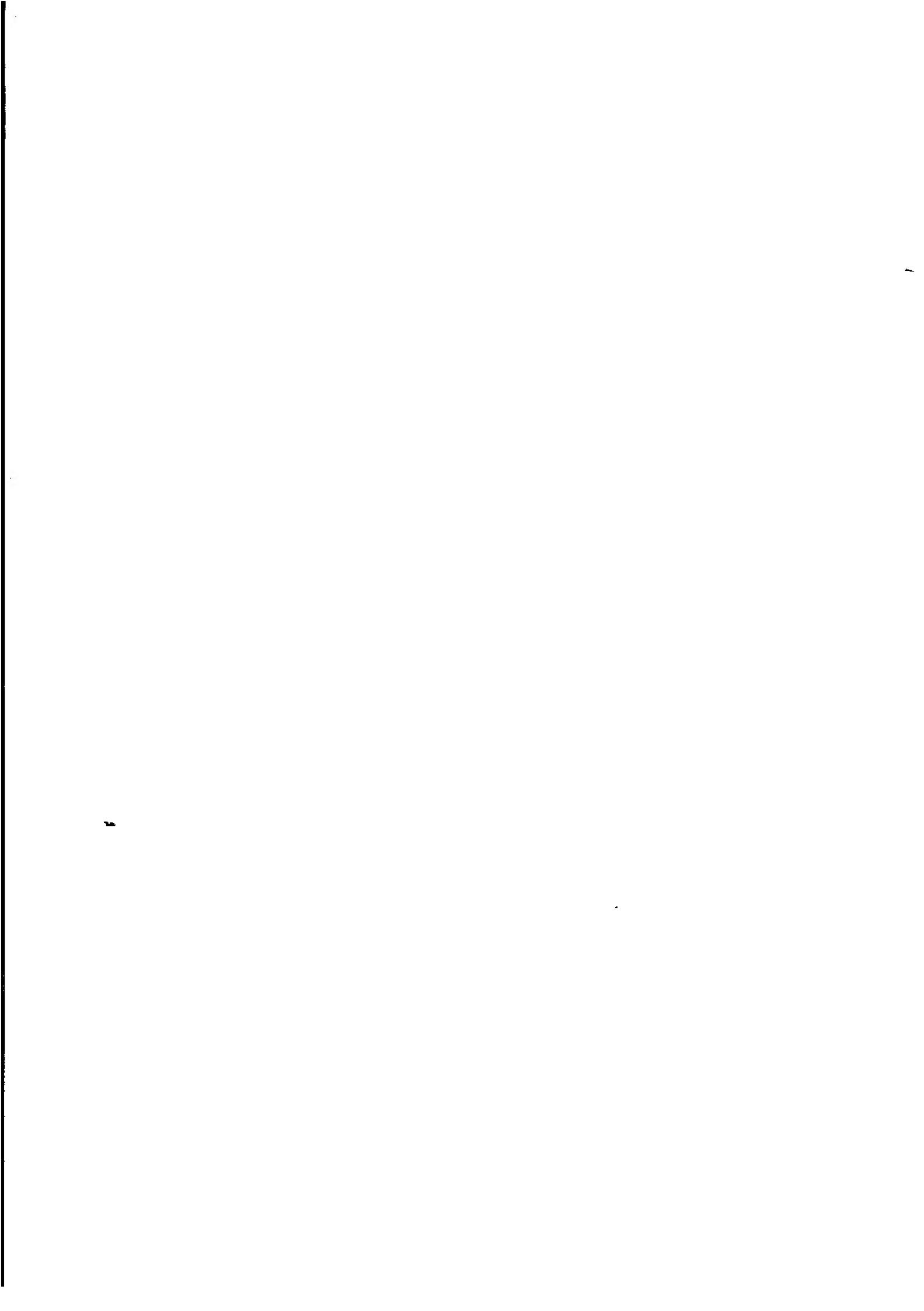
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## ABOUT THIS PUBLICATION

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### UNDERSTANDING THE DATA

This publication presents results from a study of cost comparisons between the Christmas and Cocos (Keeling) Islands and Perth. Appropriate use and interpretation of the data relies on an understanding of the distinctive cultural environment on the Islands, and on knowledge about what information was collected, how it was collected and how the information was used to produce final estimates.

To correctly interpret these results, readers should familiarise themselves with the following:

- Description of the Islands – containing a background to the Islands' geography, people, economic and social services;
- Explanatory notes – containing information on some of the factors affecting the Survey, the major concepts and definitions used, the survey methodology and the survey design and estimation;
- Technical notes – containing information about sources of error in deriving the estimates and measures of accuracy; and
- Spatial Price Index explanatory notes – containing information about pricing, index series and their calculation and the methodology used.

### RELATED PUBLICATIONS

The major publications from the 1993-94 HIES are:

- *User Guide* (ABS Cat. No. 6527.0);
- *Summary of Findings* (ABS Cat. No. 6530.0);
- *Household Characteristics* (ABS Cat. No. 6531.0);
- *States and Territories* (ABS Cat. No. 6533.0); and
- *Detailed Expenditure Items* (ABS Cat. No. 6535.0).

Other related publications are:

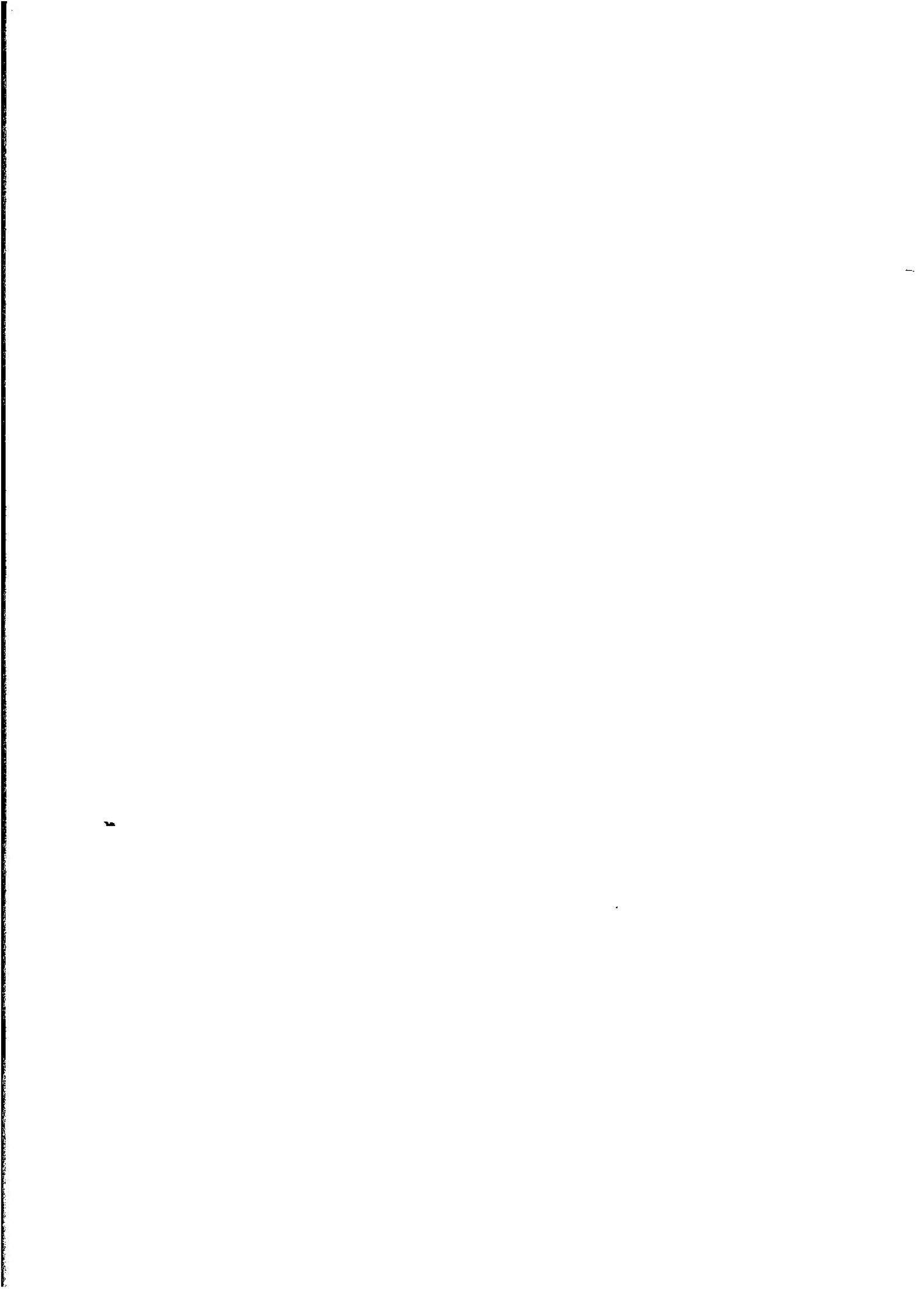
- *Delivering the Goods, Report of the Joint Standing Committee on the National Capital and External Territories, February 1995*; and
- *Commonwealth Grants Commission, Report on Christmas Island Inquiry, 1995*.

### SYMBOLS AND OTHER USAGES

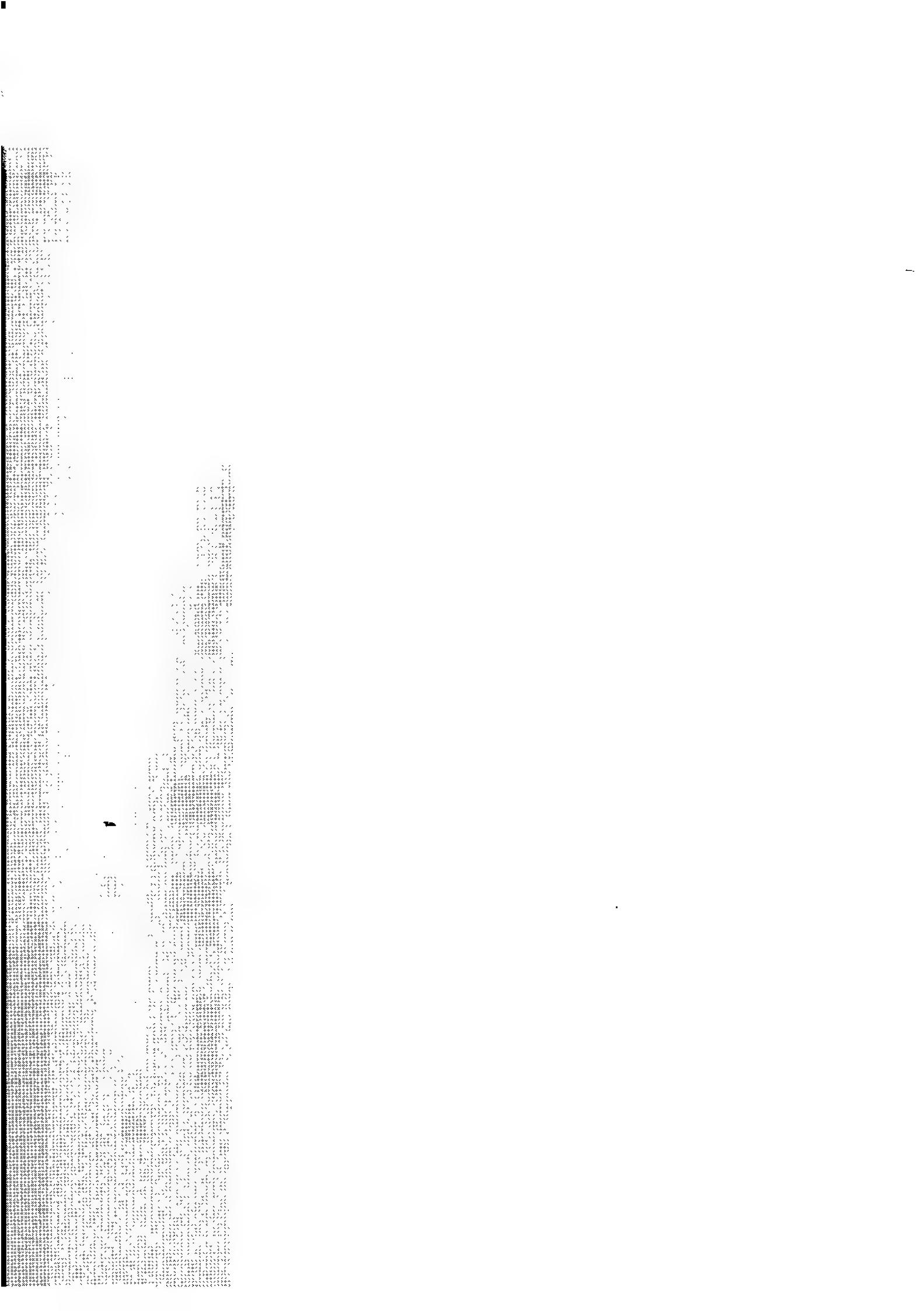
..	not applicable
—	zero or rounded to zero
n.e.c.	not elsewhere classified
n.a.	not available
*	estimate has a relative standard error between 25% and 50%
**	estimate has a relative standard error greater than 50%

### EFFECTS OF ROUNDING

Where figures have been rounded, discrepancies may occur between sums of the component items and totals. Published percentages are calculated prior to rounding of the figures and therefore discrepancies may exist between these percentages and those that could be calculated from the rounded figures.



## Section 1: Introduction



# INTRODUCTION

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## BACKGROUND

This study was undertaken by the Australian Bureau of Statistics (ABS) on behalf of the Department of the Environment, Sport and Territories (DEST). The requirement for the study arose from a report entitled *Delivering the Goods* which was produced by the Joint Parliamentary Standing Committee on the National Capital and External Territories in February 1995. This report recommended that the ABS conduct a survey 'to allow an assessment of the cost of living of residents on the Christmas and Cocos (Keeling) Islands as remote Australian communities' (for a full set of the recommendations see Basis for the study on page 6).

Currently, there is no precise definition for the concept of the 'cost of living' and no agreed statistical methodology for comparing the cost of living in one location with that in a different location. This study concentrated on two related measures: the spending patterns of Island residents, and the prices of goods and services on the Islands. Together, these measures can provide significant insights into the cost of living without being direct measures of it.

The spending patterns of Perth residents and the prices of goods and services in Perth were used for purposes of comparison. There were three main reasons for choosing Perth as the comparative location.

- Detailed spending patterns and prices for goods and services in Perth were already available from the Australian Household Income and Expenditure Survey (HIES) and from the Consumer Price Index (CPI).
- Information from this study may be used in assessing allowances and subsidies paid to Island residents based on the costs of living on the Islands in comparison with the costs of living in Perth.
- Anecdotal evidence has shown that many off-Island purchases are made in Perth.

In order to measure the spending patterns of Island residents, a Spending and Income Survey (SIS) was conducted during August and September 1995. The SIS was predominantly based on the collection methodology used for the 1993-94 Australian HIES. This was to maintain consistency and comparability with the Australian HIES results.

In order to measure the prices of goods and services on the Islands, a price collection was undertaken. The prices were combined with information from the SIS to construct a Spatial Price Index (SPI).

As a result of the study, four different methods for comparing costs between the Christmas and Cocos (Keeling) Islands and Perth have been produced:

- household expenditure patterns for the Christmas and Cocos (Keeling) Islands as derived from the SIS;
- a detailed comparison of expenditure patterns between the Islands and Perth;
- Spatial Price Indexes; and
- cost comparisons for a fixed basket of goods and services, based on the expenditure pattern of each location.

## INTRODUCTION

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### ACKNOWLEDGEMENTS

All data used by the ABS in this study were collected on a voluntary basis. Without the high level of interest and willing co-operation provided by participating householders, businesses, interest groups and administrative bodies on each of the Islands and on the mainland, it would not have been possible to compile the statistical data which forms the basis of this report.

### BASIS FOR THE STUDY

The relevant recommendations from the report, *Delivering the Goods*, are shown below. As the two recommendations are identical, except for the Island they refer to, they have been combined into one.

Number 1 and 14  
(paragraphs 3.33  
and 4.52)

'The Committee recommends that the Australian Bureau of Statistics conducts a survey on Christmas Island (*the Cocos (Keeling) Islands*) to allow an assessment of the cost of living of residents on Christmas Island (*the Cocos (Keeling) Islands*) as a remote Australian community. The survey should identify, analyse and report on:

- patterns of income and expenditure for households earning wage and/or salary income on Christmas Island (*the Cocos (Keeling) Islands*), broken down to at least three income brackets;
- prices of items in a selected household basket of goods and services on Christmas Island (*the Cocos (Keeling) Islands*);
- the cost of parcel post, fuel, electricity, housing and transport on Christmas Island (*the Cocos (Keeling) Islands*);
- the extent to which the duty-free status of Christmas Island (*the Cocos (Keeling) Islands*) affects the cost of living of its residents;
- the extent to which Zone Allowances and Location/District Allowances contribute to household expenses on Christmas Island (*the Cocos (Keeling) Islands*);
- the average weekly income for individuals and families entirely dependent on social security payments on Christmas Island (*the Cocos (Keeling) Islands*);
- the value of subsidised housing and any other benefits extended to social security recipients on Christmas Island (*the Cocos (Keeling) Islands*);
- patterns of household expenditure for social security recipients on Christmas Island (*the Cocos (Keeling) Islands*); and
- the extent to which the Remote Area Allowance paid to social security recipients on Christmas Island (*the Cocos (Keeling) Islands*) contributes to household expenses.'

Due to the complex nature of the recommendations, it was not possible for them to be fully addressed by one survey. Additional investigations, data collection and analysis would be required to be able to address all aspects of the recommendations. Consequently, the ABS and DEST agreed that only certain parts of the recommendations would be met through the conduct of this study. Results provide benchmark information on expenditure patterns for the Islands, as well as other indicative data (e.g. information about housing, transport, allowances).

Given the complex and detailed information collected, the difficulties encountered in conducting the study and the restricted SIS survey period, the results should be viewed as indicative only.

## INTRODUCTION

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### DESCRIPTION OF THE ISLANDS

Christmas Island      Named on Christmas Day in 1643 by Captain William Mynors, Christmas Island was first settled in 1888 by the Clunies-Ross family. It is situated approximately 2,600 kilometres north-west of Perth, 1,300 kilometres south-west of Singapore and about 360 kilometres south of Jakarta. The population of Christmas Island is multicultural, consisting of three main groups – Chinese, Malay, and Australian expatriates, as well as smaller groups of Indians and Eurasians. Although English is the official language of the Island, there are many residents who usually communicate in at least one of four Chinese dialects, in Malay or in Tamil Indian. At the time of the Survey, the Estimated Resident Population<sup>1</sup> on Christmas Island was 1,844 persons.

The Island enjoys a tropical climate, with an average temperature of 27°C, an annual rainfall of 2.5 metres (mainly occurring between November and May) and a humidity level of 80% or higher in the wet season. Much of the Island is covered by rainforest and is home to a variety of birds and wildlife, many of which are unique to the region.

The Island's main port is at Flying Fish Cove, where heavy north-westerly sea swells can occur during the wet season, often disrupting port operations, and hence, the delivery of goods. The population and most of the facilities are located at the northern end of the Island. The urban centre has five main suburbs – the Settlement, the Kampong, Poon Saan, Silver City and Drumsite.

Services on Christmas Island include a modern hospital offering a range of health care services, a dentist, a post office, schooling up to Year 10 (students may travel free of charge to the Australian mainland for Year 11 and 12 schooling), a radio station, a television service, police force presence, a fully international telephone service and a power station. The Island also hosts several clubs and associations, as well as an international five star resort and casino. A medical evacuation service (known as Medivac) which transports patients to the mainland at minimal cost is also available to Island residents.

The sole legal tender is the Australian dollar and there is both a bank and a banking agency on the Island. At the time of the Survey, a regular air service operated from Perth to Christmas Island and there were also other air links available from Jakarta and Singapore.

Almost everything purchased on the Island is brought in from Australia or from Singapore. Vegetables, meat and other perishables are air freighted in (affecting the costs of these goods), while bulky foodstuffs and other goods are sea freighted. The variety of food is limited and the availability of many of items was poor at the time of the Survey. This could have been due to the irregularity of shipping services at that time (for further information see Stateships on page 76). The supermarket and a variety of other stores and agencies offer a range of household and clothing items, electrical goods, watches, jewellery and sound equipment. These goods are often ordered from catalogues.

Traditionally, the basis of the Christmas Island economy has been the mining of phosphate. The level of mining activity has fluctuated widely over time and ceased for a period in the late 1980's. The 1990's has been a period of economic development for Christmas Island, with the reopening of the mine and the construction of the resort and casino. There has been a high capital expenditure program put in place to bring the Island's infrastructure up to mainland standards, resulting in an increasing population and a high rate of employment during this period.

## INTRODUCTION

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### Cocos (Keeling) Islands

Located approximately 2,700 kilometres north-west of Perth and 900 kilometres west of Christmas Island, the Cocos (Keeling) Islands are one of Australia's most remote and isolated territories. Although there are 27 Islands in the group, only two are populated. The Estimated Resident Population<sup>1</sup> at the time of the Survey was 451 persons on Home Island and 154 persons on West Island, making a total population of 605 persons.

The climate on the Cocos (Keeling) Islands is tropical with high humidity (around 70% to 75%) all year round and an average temperature of 28°C. Average annual rainfall is approximately two metres and it occurs mainly between January and August. Cyclone activity frequently dominates the weather patterns during summer, although it is rare for cyclones to hit the Islands directly.

West Island and Home Island settlements have separate and quite distinct demographic characteristics. Home Island is populated by people of mainly Islander descent and Muslim faith, most of whom are permanent residents. Their lifestyle centres around their families and the community – nearly all of the households on this Island contain families. Most of the cultural and educational activities of Home Island residents take place at a large community centre.

The majority of Home Islanders rent their homes (a few live rent free). Many residents journey by a free ferry service to West Island to work, while others operate agencies on Home Island, selling motorcycles, outboard motors, jewellery, etc. The Home Islander diet consists mainly of fish and rice, with limited amounts of fresh vegetables. They catch fish, collect coconuts and firewood from other Islands in the group, raise chickens for eggs and grow some of their own fruit and vegetables where soil conditions allow. At feast times, a full range of food is usually available (often air freighted in).

The West Island population is primarily made up of Government employees and their families. Their residential status is temporary in nature, most of them having been recruited from mainland Australia for fixed periods of up to two years. Most of the infrastructure and workplaces on the Cocos (Keeling) Islands are located on West Island. This includes the administration and shire offices, the Cocos Cooperative, the quarantine station, the Post Office and other offices.

As many Cocos (Keeling) Islanders own large freezers, it is common for householders to buy large quantities of food at a time. There is limited choice available in large goods such as furniture and household appliances. Islanders usually have to order and pay for these items at list prices. These are most often bought direct from, or ordered through, an on-Island store or agency, where goods are chosen from catalogues. Anecdotal information indicated that residents usually buy items such as clothing or material for clothes when they travel to the Australian mainland or to Malaysia, both of which are common holiday destinations. It was also reported that many women (mainly from Home Island) make their own clothing. The findings of this Survey generally supported this anecdotal information.

## INTRODUCTION

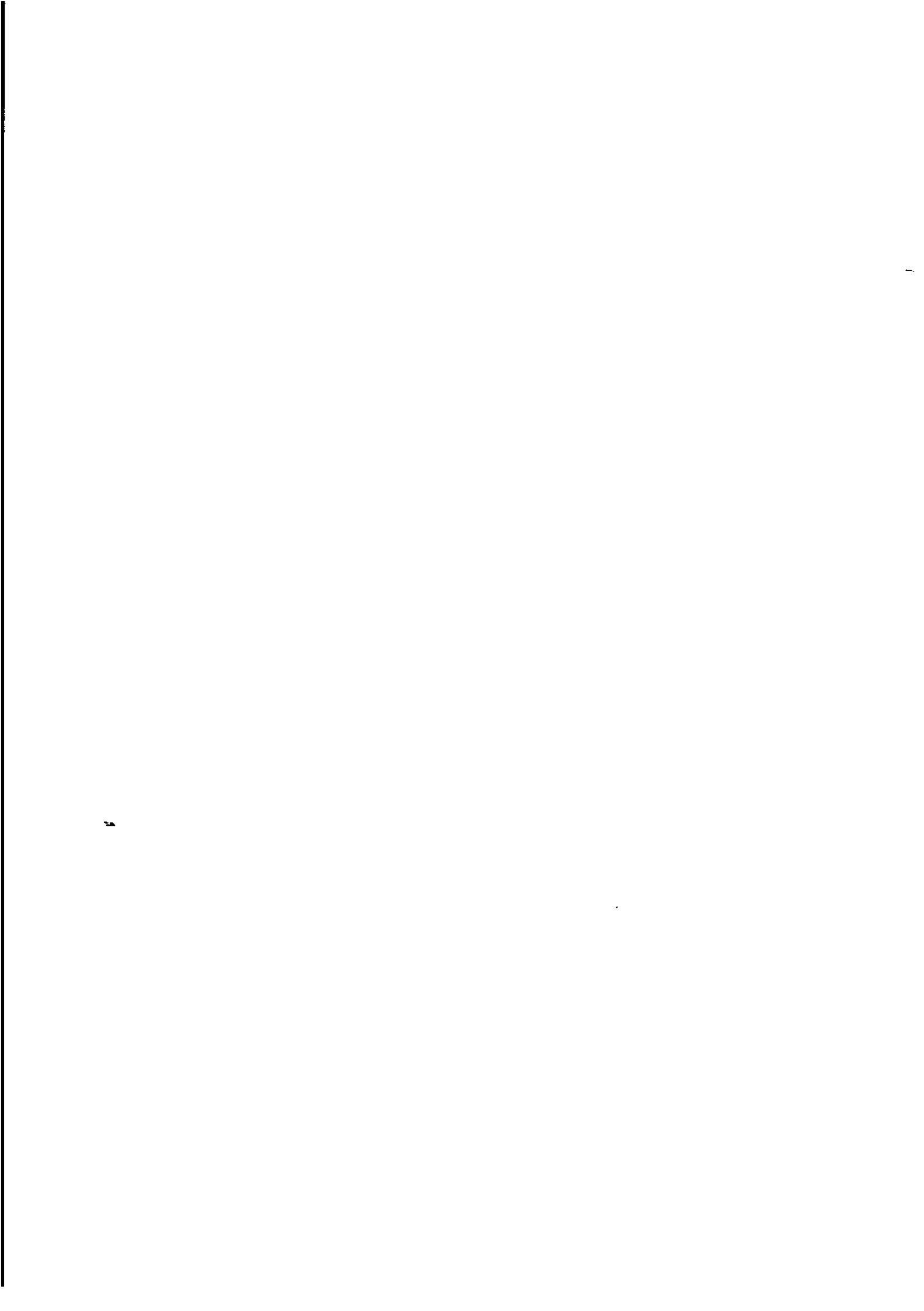
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Many leisure activities common to the mainland, such as spectator sports, cinemas, theatres, amusement arcades and a variety of restaurants, are not available to the Cocos (Keeling) Islanders. The Cocos Club on West Island is the focus for most of the Island's social activities, being a meeting place for locals and providing some entertainment. Fishing and camping out on the unpopulated Islands in the atoll are two activities popular with both West and Home Islanders. Consequently, expenditure on boats, outboard motors, fishing and diving equipment is generally higher than on the mainland.

Visits to the general practitioner are free, although medicines need to be purchased. As on Christmas Island, there is an evacuation service (Medivac) available for medical emergencies which transports patients to the mainland at minimal cost. Fees are charged by a visiting dentist and optician. Education is available up to and including Year 10. Students wishing to further their education to Year 12 may do so on the Australian mainland (travel to the mainland for Year 11 and 12 schooling is free of charge). At the time of the Survey, there was a regular air service operating twice a week from Perth to the Cocos (Keeling) Islands.

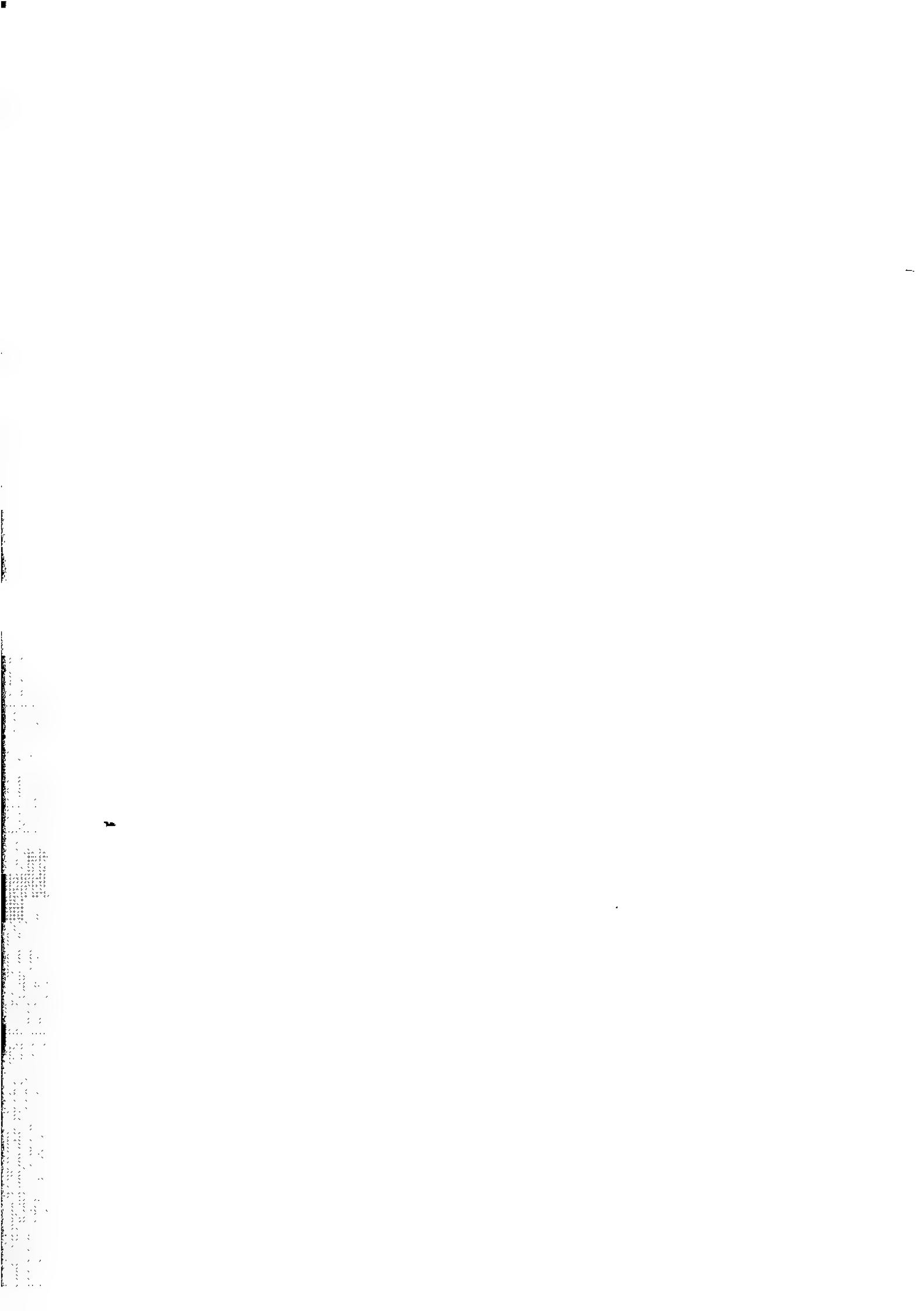
### ENDNOTES

- <sup>1</sup> Estimated Resident Population was defined as current residents who had lived or intended to live on the Islands for six months or more.

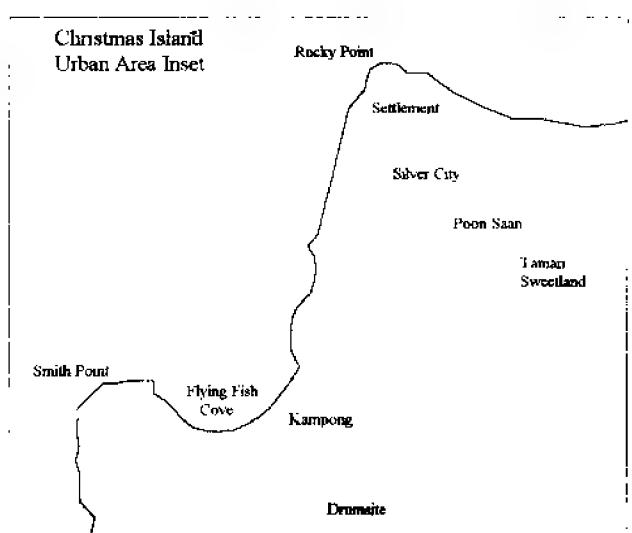
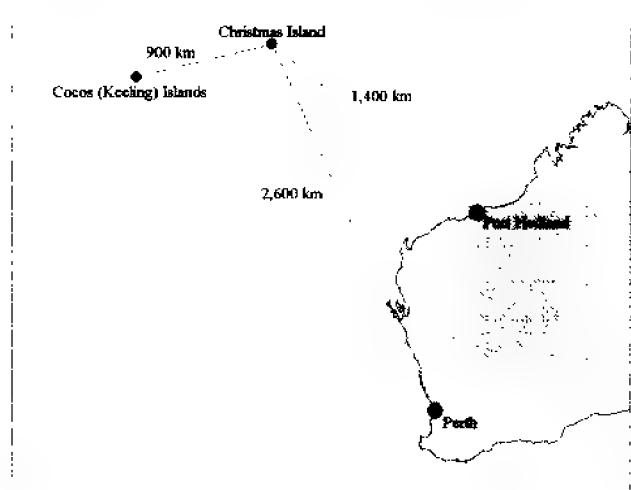
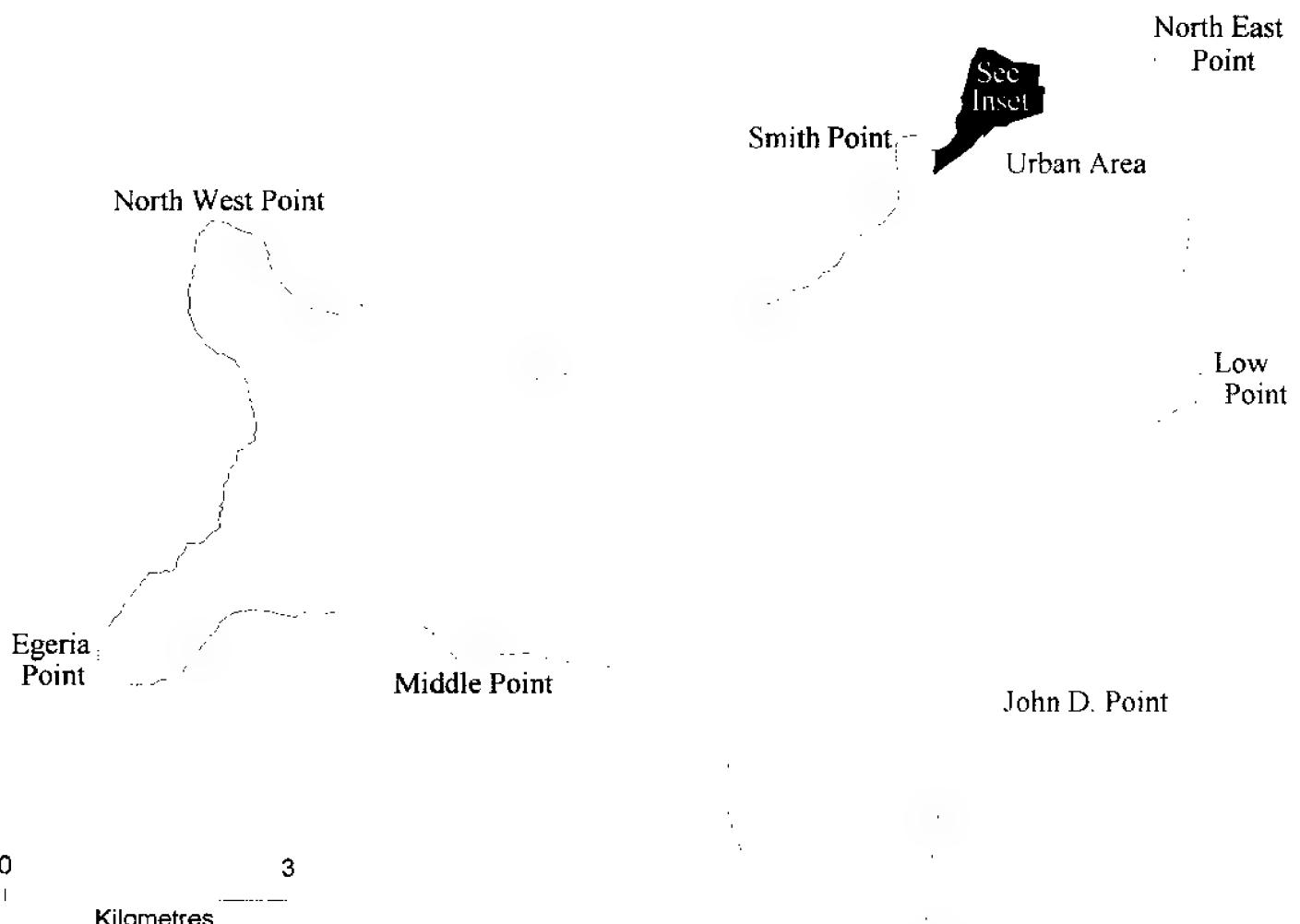


## **Section 2: Spending and Income Survey**

2013  
Year



# CHRISTMAS ISLAND



# CHRISTMAS ISLAND

## INTRODUCTION

The following provides a summary of findings for Christmas Island as derived from the Spending and Income Survey (SIS). It contains information about the demographic characteristics of Island residents, together with details of their household expenditure.

## DEMOGRAPHIC CHARACTERISTICS

### Estimated Resident Population

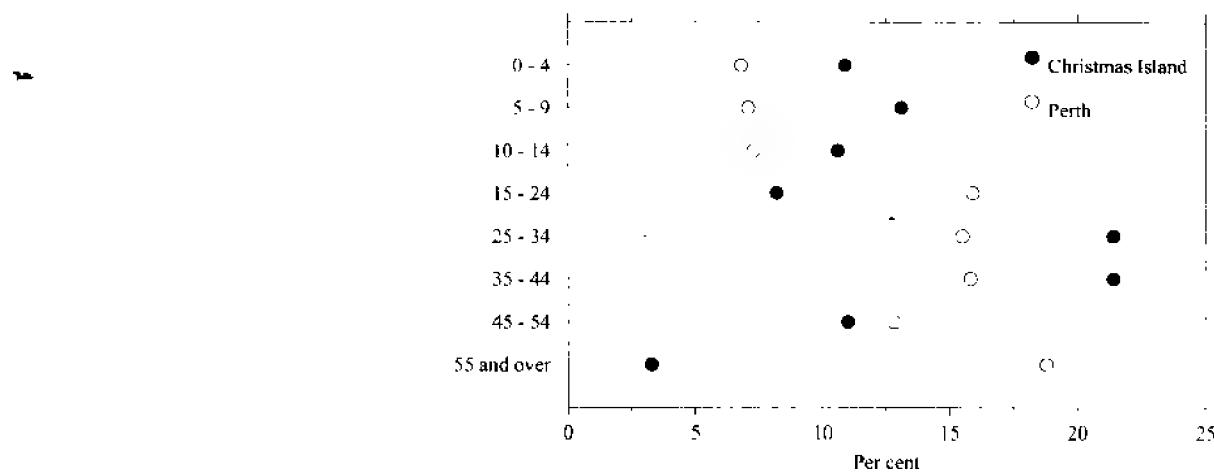
The Estimated Resident Population (ERP) figures for Christmas Island were calculated using information obtained from the SIS. Household members were included in the estimates if they had been living on the Island for six months or more, or if they intended to live on the Island for six months or more.

The estimates exclude persons who were short term visitors to either non-private dwellings (i.e. the Christmas Island Resort and the Christmas Island Lodge) or private dwellings (with or without usual residents). Note that the Drumsite construction camp units were treated as private dwellings for the purposes of the SIS and long term residents were included in the ERP estimates.

Table 1 shows that the estimated number of persons resident on Christmas Island in September 1995 was 1,844. This population consisted of slightly more males (54.6%) than females. Table 2 shows that the estimated number of persons in Perth, in June 1995, was 1,262,600. The proportion of males in the Perth population was 49.5%.

The age distribution of Island residents varied markedly compared with the age distribution of Perth residents. On Christmas Island, the proportion of the population in the 0 to 14 year age group was 34.6% whereas in Perth the proportion was lower at 21.2%. The proportion of the population in the 25 to 44 year age group was also higher on Christmas Island than in Perth (42.8% compared with 31.3%). However, the proportion of residents in the 55 years and over age group was much lower on Christmas Island than in Perth (3.3% compared with 18.8%).

### ESTIMATED RESIDENT POPULATION BY AGE GROUP<sup>1</sup>



<sup>1</sup> Estimated Resident Population figures for Christmas Island relate to September 1995 while for Perth they relate to June 1995.

# CHRISTMAS ISLAND

## **1 ESTIMATED RESIDENT POPULATION BY AGE AND SEX, CHRISTMAS ISLAND, SEPTEMBER 1995**

Age group	Males		Females		Persons	
	No.	%	No.	%	No.	%
0 - 4	99	9.8	102	12.1	201	10.9
5 - 9	137	13.6	105	12.5	242	13.1
10 - 14	99	9.8	99	11.8	196	10.6
15 - 24	87	8.6	65	7.8	152	8.2
25 - 34	197	19.6	197	23.5	394	21.4
35 - 44	205	20.4	189	22.6	394	21.4
45 - 54	140	13.9	62	7.4	202	11.0
55 and over	43	4.3	18	2.2	61	3.3
<b>Total</b>	<b>1 007</b>	<b>100.0</b>	<b>837</b>	<b>100.0</b>	<b>1 844</b>	<b>100.0</b>

## **2 ESTIMATED RESIDENT POPULATION BY AGE AND SEX, PERTH<sup>1</sup>, JUNE 1995**

Age group	Males		Females		Persons	
	No	%	No.	%	No.	%
0 - 4	44 200	7.1	42 000	6.6	86 200	6.8
5 - 9	45 800	7.3	43 300	6.8	89 100	7.1
10 - 14	47 800	7.6	45 000	7.1	92 800	7.3
15 - 24	101 200	16.2	99 000	15.5	200 200	15.9
25 - 34	97 800	15.6	98 600	15.5	196 300	15.5
35 - 44	97 900	15.7	101 600	15.9	199 500	15.8
45 - 54	82 000	13.1	79 200	12.4	161 200	12.8
55 and over	108 900	17.4	128 400	20.2	237 300	18.8
<b>Total</b>	<b>625 500</b>	<b>100.0</b>	<b>637 100</b>	<b>100.0</b>	<b>1 262 600</b>	<b>100.0</b>

<sup>1</sup> Perth Statistical Division. Source : Estimated Resident Population by Age and Sex in Statistical Local Areas, Western Australia, 30 June 1995 (ABS Cat No. 3203.5).

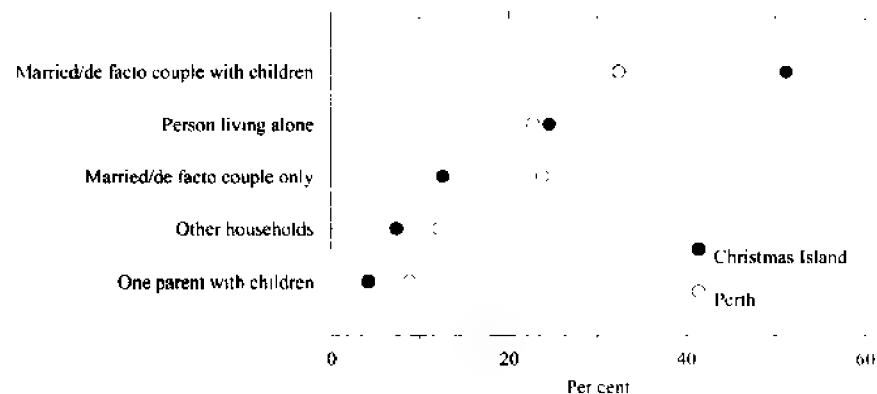
## CHRISTMAS ISLAND

### Household composition

There were distinct differences in the household composition characteristics of the Christmas Island and Perth populations. Table 3 shows that just over half of the households on Christmas Island consisted of a couple living only with their unmarried child(ren). In comparison, 32.4% of Perth households were in this category.

On Christmas Island, the proportion of married or de facto couple only households was 12.6%. This was almost half the corresponding proportion in Perth (23.8%). The proportion of one parent families on Christmas Island (4.2%) was also about half the corresponding proportion in Perth (8.8%).

### HOUSEHOLD COMPOSITION<sup>1</sup>



<sup>1</sup> Household composition figures for Christmas Island relate to September 1995, while for Perth they relate to 1993-94.

## 3 HOUSEHOLD COMPOSITION

Household composition	Christmas Island <sup>2</sup>		Perth	
	No.	%	No.	%
Person living alone	154	24.6	110 700	22.8
Married/de facto couple only	79	12.6	115 600	23.8
Married/de facto couple living only with their unmarried child(ren)	320	51.2	157 400	32.4
One parent living only with his/her unmarried child(ren)	26	4.2	43 000	8.8
All other households	46	7.4	59 100	12.2
<b>All households</b>	<b>626</b>	<b>100.0</b>	<b>485 900</b>	<b>100.0</b>

<sup>2</sup> Household composition figures for Christmas Island relate to September 1995

<sup>2</sup> Source: Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0).

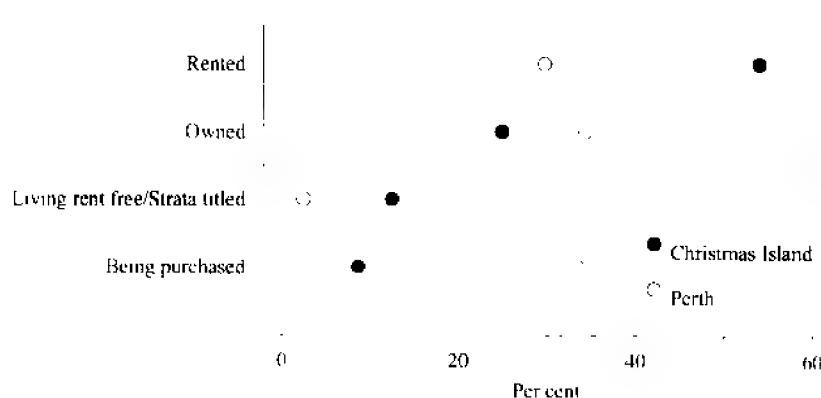
## CHRISTMAS ISLAND

Household tenure type

Table 4 shows that the tenure characteristics of households on Christmas Island were very different from the tenure characteristics of Perth households. Only 8.7% of Christmas Island households were in the process of purchasing their dwelling whereas in Perth the proportion was much higher at 33.5%. The proportion of households who owned their own home was 24.9% on Christmas Island, whereas the corresponding proportion in Perth was slightly higher at 34.3%. In contrast, while 53.8% of households were renting on Christmas Island, only 29.7% were doing so in Perth.

On Christmas Island, 12.5% of households were living rent free or in strata titled units in comparison with only 2.5% of households living rent free in Perth. At the time of the Survey, about half of those households that were categorised as living rent free were actually in the process of finalising their strata titling arrangements (for further information, see Strata titling on page 77).

### HOUSEHOLD TENURE TYPE<sup>1</sup>



<sup>1</sup> Household tenure figures for Christmas Island relate to September 1995, while for Perth they relate to 1993-94.

### 4 HOUSEHOLD TENURE TYPE

Tenure type	Christmas Island <sup>1</sup>		Perth <sup>2</sup>	
	No.	%	No.	%
Owned	156	24.9	166 700	34.3
Being purchased	55	8.7	162 800	33.5
Rented	337	53.9	144 300	29.7
Living rent free / Strata titled <sup>3</sup>	78	12.5	12 100	2.5
<b>All households</b>	<b>626</b>	<b>100.0</b>	<b>485 900</b>	<b>100.0</b>

<sup>1</sup> Household tenure figures for Christmas Island relate to September 1995.

<sup>2</sup> Source - Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0).

<sup>3</sup> Strata titled refers to some Christmas Island units that were undergoing strata titling at the time of the Survey.

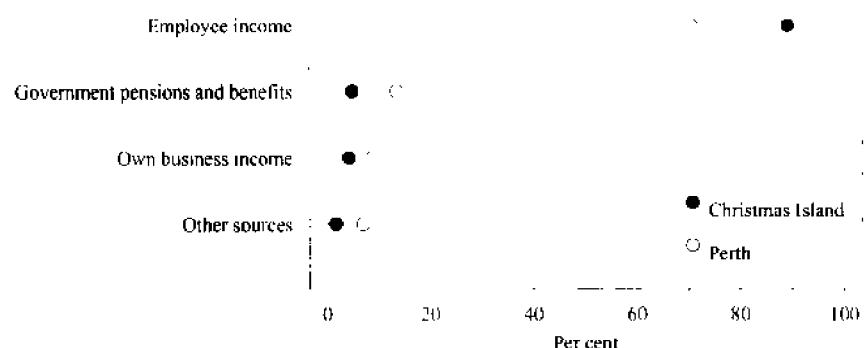
## CHRISTMAS ISLAND

### Source of household income

Total household income is derived from various sources. These sources include employee income, own business income, income from government pensions and benefits and other sources of income. Table 5 shows the proportion of total household income that was derived from these sources. The greatest source of household income on both Christmas Island and in Perth was employee income. On Christmas Island, almost 90% of total household income was derived from employee income, whereas in Perth, the proportion was lower at 70.6%.

Government pensions and benefits made up 4.9% of total household income on Christmas Island. The corresponding proportion in Perth was higher at 13.5%. The proportion of total income attributable to own business income and other sources, was also lower on Christmas Island (6.1%) than in Perth (15.9%).

### SOURCE OF HOUSEHOLD INCOME<sup>1</sup>



<sup>1</sup> Source of household income figures for Christmas Island relate to September 1995, while for Perth they relate to 1993-94

## 5

### SOURCE OF HOUSEHOLD INCOME

Source of income	Christmas Island <sup>1</sup>		Perth
	%	%	
Employee income	89.1		70.6
Own business income	4.3		8.9
Government pensions and benefits	4.9		13.5
Other sources <sup>2</sup>	6.1		15.9
<b>Total household income</b>	<b>100.0</b>		<b>100.0</b>

<sup>1</sup> Source of household income figures for Christmas Island relate to September 1995

<sup>2</sup> Source : Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0)

<sup>3</sup> Other sources of household income includes income from investments, financial institution interest, rental properties, workers compensation and any other regular source of income

# CHRISTMAS ISLAND

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## HOUSEHOLD EXPENDITURE AND CHARACTERISTICS

Household expenditure and characteristics, Christmas Island and Perth

Table 6 shows that the total household expenditure on Christmas Island was \$708.60 compared with \$749.20 in Perth. The distribution of this expenditure varied considerably between the two locations.

Where Christmas Island residents spent 32.2% of their total household expenditure on food and non-alcoholic beverages, the corresponding proportion for Perth was less than half at 15.5%. There were three major contributors to this difference.

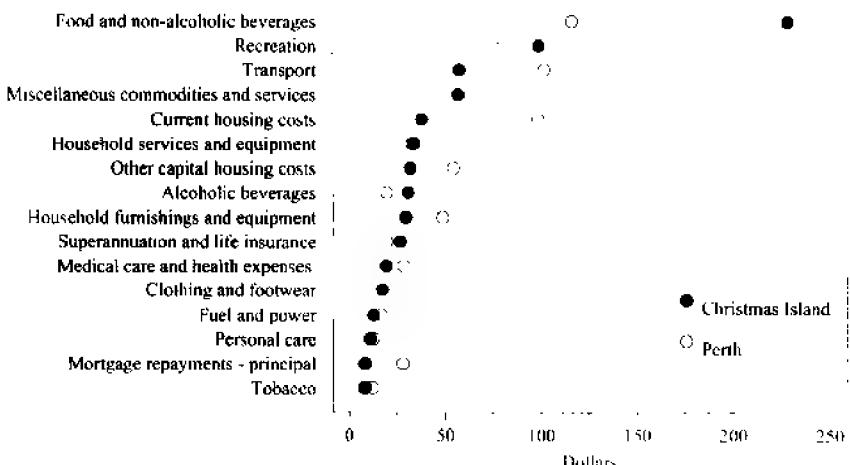
- At the time of the Survey, the prices of some goods on Christmas Island were up to four times higher than the corresponding price in Perth. However, this varied considerably, depending on the commodity.
- Differences in the lifestyle of Christmas Island residents in comparison with Perth residents had an effect on the distribution of expenditure. Of the expenditure on food and non-alcoholic beverages on Christmas Island, 40% related to expenditure on meals out and take-away food, compared with only 27.1% in Perth. Many of the residents on Christmas Island reported eating out frequently. Prices of meals in restaurants, hotels, clubs etc., were the same or cheaper than in Perth.
- Differences in diet between Christmas Island and Perth residents was a third major factor contributing to the different spending patterns. As an example, the proportion of total household expenditure on pasta (spaghetti, noodles etc.) and rice on Christmas Island was six times the proportion spent in Perth.

Christmas Island residents spent 5.4% of their total household expenditure on current housing costs (selected dwelling) in comparison with 13.1% in Perth. This was mainly due to the fact that only 8.7% of Christmas Island households were purchasing their dwelling in comparison with 33.5% in Perth. This resulted in less expenditure on mortgage payments and associated rates and charges on Christmas Island. The proportion of Christmas Island households renting was 53.9% compared with 29.7% in Perth. Generally there were lower rent charges on Christmas Island and in addition, 12.5% of Christmas Island households were living rent free in comparison with 2.5% of Perth households. Of the 12.5% Christmas Island households living rent free, about half were actually living in units that were in the process of being strata titled (for further information, see Strata titling on page 77).

The average weekly household income for Christmas Island residents was \$990.00 compared with \$765.00 for Perth residents. The main reason for this difference was that there was a larger proportion of households on Christmas Island with high earnings in comparison with Perth. The average number of employed persons per household was 1.4 on Christmas Island in comparison with 1.2 in Perth.

# CHRISTMAS ISLAND

## AVERAGE WEEKLY HOUSEHOLD EXPENDITURE, CHRISTMAS ISLAND AND PERTH



### Household expenditure and characteristics, Region

Information for this Survey was collected from six different Christmas Island regions. Table 7 shows that the total household expenditure was lowest in Poon Saan (other)<sup>2</sup>, the Settlement and in the Kampong. Expenditure in these regions was a weekly average of \$601.60, \$644.30 and \$677.90 respectively. Higher expenditure was reported in Silver City (an average of \$840.90 per week) and in Drumsite (an average of \$910.90 per week). The total household expenditure in Poon Saan<sup>1</sup> was \$740.70.

Of the six Christmas Island regions in this Survey, Poon Saan (other)<sup>2</sup> and the Kampong had the largest number of households (160 and 154 respectively), Drumsite and the Settlement had the smallest number of households (52 and 54 respectively), and Silver City and Poon Saan<sup>1</sup> had 82 and 124 households respectively. On average, there were three persons per household on Christmas Island. This varied between the regions, from two persons per household in Poon Saan (other)<sup>2</sup> to four persons per household in Silver City.

Households in Poon Saan<sup>1</sup> spent 1.9% of their total household expenditure on current housing costs (selected dwelling) (an average of \$14.00 per week). This was the lowest across all of the regions and was less than half the amount spent on current housing costs (selected dwelling), across all Christmas Island households. The reason for this could be due to the high proportion of dwellings in Poon Saan<sup>1</sup> that were being strata titled at the time of the Survey (for further information see Strata titling on page 77).

Households in Poon Saan<sup>1</sup> spent an average of \$64.80 per week on recreation (corresponding to 8.7% of their total household expenditure). In contrast, households in Poon Saan (other)<sup>2</sup> spent an average of \$123.80 on recreation, corresponding to 20.6% of their total household expenditure.

The highest average weekly household income was reported by residents in Silver City (\$1,326.30) while the lowest was reported by residents in the Kampong (\$767.90).

## CHRISTMAS ISLAND

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Household expenditure and characteristics, Household income group

As shown in Table 8, the total household expenditure was \$499.20 for the lowest income group, \$771.80 for the middle income group and \$824.20 for the highest income group.

Of all households, those in the lowest income group spent the least on food and non-alcoholic beverages (an average of \$183.10 a week). However, the corresponding proportion of expenditure for this group (36.7%) was the highest across all groups.

Households in the lowest income group spent the least on recreation expenses (an average of \$49.80 a week corresponding to 10.0% of their total household expenditure). The middle and upper income groups spent an average of \$105.80 a week (13.7%) and \$133.00 a week (16.1%) respectively on recreation. Households in the lowest income group spent, on average, \$9.40 a week on superannuation and life insurance. This compares with \$26.20 a week for the middle income group and \$41.80 a week for the highest income group.

The average weekly household income ranged from \$429.40 for the lowest income group to \$895.70 for the middle income group and to \$1,554.00 for the highest income group. However, the fact that the average number of employed persons per household ranged from 0.8 for the lowest income group to 2.0 employed persons per household in the highest income group may account for much of this difference.

For the lowest income group, the average weekly household income appears to be lower at \$429.40 than the total household expenditure for this group (\$499.20). This apparent discrepancy could be due to a number of different factors and is not inconsistent with similar findings from the Australian Household Income and Expenditure Survey (HIES) results. Firstly, as the estimates in this publication are based on a sample of possible observations, they are subject to sampling variability and estimates may differ from the figures that would have been produced if information had been collected for all households on Christmas Island.

If the standard errors in this particular example are used to calculate confidence intervals, then it can be seen that there is a 95% chance that the true average weekly household income for households in the lowest income group fell between \$383.80 and \$475.00. Furthermore, there is a 95% chance that the true total household expenditure for households in the lowest income group fell between \$436.20 and \$562.20. Since the two confidence intervals overlap, the true average weekly household income may not in reality have been lower than the total household expenditure (for further information see Technical notes on page 84).

A second contributing factor to this apparent discrepancy is the way in which income and expenditure have been collected in this Survey. Expenditure estimates for different items refer to different periods as do income estimates for different sources of income. Expenditure does not cover all current payments (e.g. residents may use past savings to finance current expenditure) and income does not cover all possible sources of income (for further information, see Difference between income and expenditure on page 80).

## CHRISTMAS ISLAND

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### Household expenditure and characteristics, Principal source of household income

Of all Christmas Island households, 86.1% received the majority of their income from wages and salaries. A further 8.9% received the majority of their income from government pensions and benefits, and the remainder received the majority of their income from other sources (including income from investments, rental properties, workers compensation and any other regular source of income). As shown in Table 9, the total household expenditure for households whose principal source of income was derived from wages and salaries (\$738.30) was much higher than that for those households whose principal source of income was derived from government pensions and benefits (\$415.20).

Those households whose main source of income was derived from wages and salaries spent an average of \$233.00 a week on food and non-alcoholic beverages, which corresponded to 31.6% of their total household expenditure. In comparison, households whose main source of income was derived from government pensions and benefits spent, on average, \$187.80 a week on food and non-alcoholic beverages. However, this amount corresponded to almost half (45.2%) of their total household expenditure.

Households whose main source of income was derived from wages and salaries spent an average of \$104.80 a week on recreation. This was over three times the amount spent by these households whose main source of income was derived from government pensions and benefits (\$30.70).

Households whose main source of income was derived from wages and salaries had an average weekly household income over three and a half times that of households whose main source of income was derived from government pensions and benefits (\$1,064.50 compared with \$292.90). However, the average number of employed persons per household was 1.6 and 0.2 respectively, for these two groups.

The average weekly household income for households whose principal source of income was derived from government pensions and benefits appears to be lower at \$292.90 than the total household expenditure for this group (\$415.20). As described earlier, the estimates are based on a sample of possible observations, and hence they are subject to sampling variability. Estimates may differ from the figures that would have been produced if information had been collected for all households on Christmas Island. The apparent difference could also be due to the way in which expenditure and income data are collected in this Survey (for further information, see Difference between income and expenditure on page 80).

### Household expenditure and characteristics, Household type

Table 10 shows that the total household expenditure for households with one person living alone was \$427.80. For married/de facto couples, the corresponding figure was \$715.40 while for households with a married/de facto couple or one parent with child(ren), it was \$803.40.

Single person households spent, on average, \$114.70 a week on food and non-alcoholic beverages. The corresponding figure for households with a married/de facto couple only was \$213.10 and for households with a married/de facto couple or one parent with child(ren) it was \$278.90. For households with one person living alone, 8.1% of their total household expenditure was spent on alcoholic beverages and 2.7% was spent on tobacco. For households with a married/de facto couple or one parent with child(ren), the corresponding percentages for alcoholic beverages and tobacco were lower at 2.7% and 0.8% respectively.

The average weekly household expenditure on household services and operations ranged from an average of \$12.50 a week for single person households, to \$27.20 a week for married/de facto couples and \$46.40 a week for households with a married/de facto couple or one parent with child(ren). This includes expenditure on household non-durables (such as nails, screws, soaps, detergents, tissue paper, serviettes, trees, shrubs and plants), postal and telephone charges, household services (such as pest control and gardening services), childcare services and other household hire and maintenance expenses.

The average weekly household income was lowest for those households with one person living alone (\$710.70). For households with a married/de facto couple only, the average weekly household income was \$1,121.60 and for married/de facto couples or one parent with child(ren) it was \$1,013.50.

### Household expenditure and characteristics, Household tenure type

As shown in Table 4, 53.9% of all Christmas Island households rented their dwelling at the time of the Survey. A further 24.9% owned their dwelling, 12.5% either lived rent free or in a unit which was undergoing strata titling and 8.7% were in the process of purchasing their dwelling.

Table 11 shows that the total household expenditure for households that rented their dwelling was \$596.10. This was lower than the corresponding figure for owner/purchaser households (\$893.40). Households that rented their dwellings spent, on average, more on alcoholic beverages than owner/purchaser households (an average of \$41.40 and \$17.80 a week respectively). Alcoholic beverages accounted for 6.9% of total household expenditure for households that rented their dwelling, compared with only 2.0% for owner/purchaser households.

Households that rented their dwelling spent less on food and non-alcoholic beverages than owner/purchaser households. While the corresponding proportion of total household expenditure was fairly consistent (29.6% for renting households compared with 33.5% for owner/purchaser households), the average weekly household expenditure on food and non-alcoholic beverages was over \$100 higher for owner/purchaser households.

The average weekly household expenditure on household furnishings and equipment and household services and operations was \$93.30 for owner/purchaser households. This was more than double the average weekly household expenditure on these commodity groups by households that rented their dwelling (an average of \$44.30 a week). Expenditure on these goods and services represented 7.5% of total household expenditure for households that rented their dwelling compared with 10.5% of total household expenditure for owner/purchaser households.

Households who rented their dwelling spent, on average, 16.0% of their total household expenditure on recreation, compared with 11.3% by owner/purchaser households. Current housing costs (selected dwelling) expenses made up 8.2% of total household expenditure for those households which rented their dwelling compared with 3.8% of total household expenditure for those households which owned outright, or were in the process of purchasing, their dwelling.

## CHRISTMAS ISLAND

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Household expenditure and characteristics, Number of usual residents in household

Table 12 shows that the total average weekly household expenditure for those Christmas Island households with only one usual resident was \$427.80, whereas for households with two to four usual residents it was \$766.50, and for those households with five or more usual residents it was \$896.40. The majority of Christmas Island households (55.8%) had two to four usual residents. There were 154 households (24.6%) with only one usual resident and 123 households (19.6%) with five or more usual residents.

Households with only one usual resident spent an average of \$114.70 a week on food and non-alcoholic beverages (corresponding to 26.8% of their total household expenditure). Households with two to four usual residents spent an average of \$242.80 a week (31.7% of total household expenditure) and households with five or more usual residents spent an average of \$328.90 a week (36.7% of total household expenditure) on food and non-alcoholic beverages.

Households with five or more usual residents spent, on average, \$112.30 a week on other capital housing costs. This corresponded to 12.5% of their total household expenditure compared with the 4.5% of total household expenditure spent on other capital housing costs across all households. Expenditure on other capital housing costs includes expenditure on principal repayments for other property, additions/extensions, internal renovations, insulation, inground swimming pools, outside buildings, landscape contractors and other outside improvements.

The average weekly household income for those households with only one usual resident was \$710.70, while for those households with two to four usual residents it was \$1,118.60. For those households with five or more usual residents the corresponding figure was \$976.00.

### ENDNOTES

<sup>1</sup> Comprised mainly of persons of Chinese origin.

<sup>2</sup> Comprised only of casino workers' quarters, including Taman Sweetland.

# CHRISTMAS ISLAND

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## 6

### HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, CHRISTMAS ISLAND AND PERTH

Broad expenditure group	Christmas Island		Perth <sup>1</sup>	
	\$	%	\$	%
Average weekly household expenditure				
Current housing costs (selected dwelling)	38.00	5.4	98.50	13.1
Fuel and power	12.50	1.8	16.80	2.2
Food and non-alcoholic beverages	228.20	32.2	115.80	15.5
Alcoholic beverages	30.80	4.3	19.60	2.6
Tobacco	8.30	1.2	11.90	1.6
Clothing and footwear	17.40	2.5	32.80	4.4
Household furnishings and equipment	29.50	4.2	48.60	6.5
Household services and operations	33.80	4.8	32.60	4.3
Medical care and pharmaceuticals	19.40	2.7	28.30	3.8
Transport	57.50	8.1	101.60	13.6
Recreation	98.70	13.9	80.30	10.7
Personal care	10.90	1.5	12.60	1.7
Miscellaneous commodities and services	56.90	8.0	47.60	6.4
<b>Total commodity and service expenditure</b>	<b>641.80</b>	<b>90.6</b>	<b>647.20</b>	<b>86.4</b>
Mortgage repayments – principal (selected dwelling)	* 8.40	* 1.2	28.10	3.7
Other capital housing costs	* 31.70	4.5	* 54.40	* 7.3
Superannuation and life insurance	26.70	3.8	19.60	2.6
<b>Total household expenditure</b>	<b>708.60</b>	<b>100.0</b>	<b>749.20</b>	<b>100.0</b>

#### Household characteristics

Average weekly household income (\$)	990.00	765.00
Average number of persons in the household	3.0	2.6
Average number of employed persons in the household	1.4	1.2
Number of households in sample	253	536
Estimated number of households in population	626	485 900

<sup>1</sup> Average weekly household expenditure estimates for Perth have been updated from the 1993-94 Household Income and Expenditure Survey figures to September 1995 figures using appropriate index numbers from the Consumer Price Index (ABS Cat No. 6401.0) and the House Price Index (ABS Cat No. 6416.0). The average weekly household income figure for Perth has been updated using Average Weekly Earnings estimates (ABS Cat No. 6302.0)

# CHRISTMAS ISLAND

## 7 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION

Broad expenditure group	Kampong		Settlement		Silver City	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	48.90	7.2	35.30	5.5	60.70	7.2
Fuel and power	17.20	2.5	16.60	2.6	17.00	2.0
Food and non-alcoholic beverages	224.20	33.1	190.00	29.5	273.20	32.5
Alcoholic beverages	32.60	4.8	31.30	4.9	24.50	2.9
Tobacco	11.40	1.7	* 6.20	* 1.0	* 5.20	* 0.6
Clothing and footwear	21.20	3.1	* 28.80	* 4.5	* 17.20	* 2.1
Household furnishings and equipment	28.70	4.2	* 38.50	* 6.0	33.20	4.0
Household services and operations	31.60	4.7	* 44.00	* 6.8	42.50	5.1
Medical care and health expenses	16.00	2.4	24.10	3.7	22.30	2.7
Transport	57.40	8.5	** 17.90	** 2.8	* 39.50	* 4.7
Recreation	90.90	13.4	101.00	15.7	116.00	13.8
Personal care	8.80	1.3	12.90	2.0	8.50	1.0
Miscellaneous commodities and services	40.20	5.9	35.20	5.5	64.40	7.7
<b>Total commodity and service expenditure</b>	<b>629.30</b>	<b>92.8</b>	<b>581.70</b>	<b>90.3</b>	<b>724.40</b>	<b>86.1</b>
Mortgage repayments – principal (selected dwelling)	* 5.50	* 0.8	** 4.00	** 0.6	** 36.60	** 4.4
Other capital housing costs	** 23.30	** 3.4	** 25.20	** 3.9	** 28.00	** 3.3
Superannuation and life insurance	19.80	2.9	33.40	5.2	51.90	6.2
<b>Total household expenditure</b>	<b>677.90</b>	<b>100.0</b>	<b>644.30</b>	<b>100.0</b>	<b>840.90</b>	<b>100.0</b>

### Household characteristics

Average weekly household income (\$)	767.90	1 016.30	1 326.30
Average number of persons in the household	3.3	2.5	4.0
Average number of employed persons in the household	1.2	1.4	1.6
Number of households in sample	75	29	34
Estimated number of households in population	154	54	82

<sup>1</sup> Comprised mainly of persons of Chinese origin

<sup>2</sup> Comprised only of casino workers quarters, including Taman Sweetland.

# CHRISTMAS ISLAND

## 7

### HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION - CONTINUED

Broad expenditure group	Drumsite		Poon Saan <sup>1</sup>		Poon Saan (other)		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	59.40	6.5	14.00	1.9	28.40	4.7	38.00	5.4
Fuel and power	17.70	1.9	15.60	2.1	** 0.30	—	12.50	1.8
Food and non-alcoholic beverages	273.80	30.1	268.20	36.2	175.90	29.2	228.20	32.2
Alcoholic beverages	28.60	3.1	16.00	2.2	44.30	7.4	30.80	4.3
Tobacco	10.20	1.1	6.30	0.8	8.50	1.4	8.30	1.2
Clothing and footwear	* 10.00	* 1.1	6.40	0.9	* 20.70	3.4	17.40	2.5
Household furnishings and equipment	40.60	4.5	31.70	4.3	* 20.20	3.4	29.50	4.2
Household services and operations	49.10	5.4	38.20	5.2	19.40	3.2	33.80	4.8
Medical care and health expenses	* 24.20	* 2.7	12.60	1.7	23.50	3.9	19.40	2.7
Transport	61.30	6.7	90.50	12.2	53.30	8.9	57.50	8.1
Recreation	95.40	10.5	64.80	8.7	123.80	20.6	98.70	13.9
Personal care	8.20	0.9	12.20	1.6	13.40	2.2	10.90	1.5
Miscellaneous commodities and services	* 60.30	* 6.6	72.00	9.7	* 63.80	* 10.6	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>738.70</b>	<b>81.1</b>	<b>648.40</b>	<b>87.5</b>	<b>595.30</b>	<b>98.9</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	* 15.30	* 1.7	* 3.00	* 0.4	—	—	* 8.40	* 1.2
Other capital housing costs	* 108.30	* 11.9	66.00	8.9	** -7.40	** -1.2	* 31.70	4.5
Superannuation and life insurance	48.60	5.3	23.30	3.1	* 13.70	2.3	26.70	3.8
<b>Total household expenditure</b>	<b>910.90</b>	<b>100.0</b>	<b>740.70</b>	<b>100.0</b>	<b>601.60</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>

### Household characteristics

Average weekly household income (\$)	888.40	875.10	1 144.80	990.00
Average number of persons in the household	3.6	3.2	2.0	3.0
Average number of employed persons in the household	1.4	1.3	1.6	1.4
Number of households in sample	23	57	35	253
Estimated number of households in population	52	124	160	626

<sup>1</sup> Comprised mainly of persons of Chinese origin

' Comprised only of casino workers' quarters, including Taman Sweetland.

# CHRISTMAS ISLAND

## 8

### HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD INCOME GROUP

Broad expenditure group	Lowest third		Middle third		Highest third		All households	
	\$	%	\$	%	\$	%	\$	%
Average weekly household expenditure								
Current housing costs (selected dwelling)	41.90	8.4	36.50	4.7	36.20	4.4	38.00	5.4
Fuel and power	10.80	2.2	13.50	1.8	13.10	1.6	12.50	1.8
Food and non-alcoholic beverages	183.10	36.7	244.70	31.7	250.20	30.3	228.20	32.2
Alcoholic beverages	23.20	4.6	26.40	3.4	41.50	5.0	30.80	4.3
Tobacco	10.20	2.0	6.50	0.8	8.40	1.0	8.30	1.2
Clothing and footwear	* 11.70	* 2.3	* 21.60	* 2.8	18.00	2.2	17.40	2.5
Household furnishings and equipment	24.60	4.9	33.50	4.3	29.80	3.6	29.50	4.2
Household services and operations	21.80	4.4	33.70	4.4	43.80	5.3	33.80	4.8
Medical care and health expenses	11.40	2.3	19.10	2.5	26.50	3.2	19.40	2.7
Transport	32.50	6.5	58.60	7.6	77.50	9.4	57.50	8.1
Recreation	49.80	10.0	105.80	13.7	133.00	16.1	98.70	13.9
Personal care	8.30	1.7	11.20	1.5	12.80	1.6	10.90	1.5
Miscellaneous commodities and services	38.60	7.7	79.30	10.3	50.80	6.2	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>467.80</b>	<b>93.7</b>	<b>690.40</b>	<b>89.5</b>	<b>741.60</b>	<b>90.0</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	* 5.20	* 1.0	** 16.30	** 2.1	* 3.40	* 0.4	* 8.40	* 1.2
Other capital housing costs	** 16.70	** 3.3	* 39.00	* 5.0	* 37.40	* 4.5	* 31.70	4.5
Superannuation and life insurance	9.40	1.9	26.20	3.4	41.80	5.1	26.70	3.8
<b>Total household expenditure</b>	<b>499.20</b>	<b>100.0</b>	<b>771.80</b>	<b>100.0</b>	<b>824.20</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>
Household characteristics								
Upper boundary of income group (\$)	658.60		1 126.80		..		..	
Average weekly household income (\$)	429.40		895.70		1 554.00		990.00	
Average number of persons in the household	2.6		3.2		3.2		3.0	
Average number of employed persons in the household	0.8		1.4		2.0		1.4	
Number of households in sample	84		85		84		253	
Estimated number of households in population	188		215		223		626	

**CHRISTMAS ISLAND**

**9**

**HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY PRINCIPAL SOURCE OF HOUSEHOLD INCOME**

Broad expenditure group	Wages and salaries		Government pensions and benefits		All households <sup>1</sup>	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	37.10	5.0	29.60	7.1	38.00	5.4
Fuel and power	11.90	1.6	12.30	3.0	12.50	1.8
Food and non-alcoholic beverages	233.00	31.6	187.80	45.2	228.20	32.2
Alcoholic beverages	32.20	4.4	* 14.70	* 3.5	30.80	4.3
Tobacco	7.50	1.0	10.20	2.5	8.30	1.2
Clothing and footwear	19.00	2.6	** 5.80	** 1.4	17.40	2.5
Household furnishings and equipment	30.00	4.1	13.00	3.1	29.50	4.2
Household services and operations	35.90	4.9	21.50	5.2	33.80	4.8
Medical care and health expenses	19.90	2.7	10.60	2.6	19.40	2.7
Transport	61.20	8.3	33.00	7.9	57.50	8.1
Recreation	104.80	14.2	30.70	7.4	98.70	13.9
Personal care	11.40	1.6	5.80	1.4	10.90	1.5
Miscellaneous commodities and services	63.10	8.5	14.90	* 3.6	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>667.10</b>	<b>90.4</b>	<b>389.90</b>	<b>93.9</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments (principal (selected dwelling))	* 9.30	* 1.3	—	—	* 8.40	* 1.2
Other capital housing costs	* 31.60	* 4.3	** 24.80	** 6.0	* 31.70	4.5
Superannuation and life insurance	30.20	4.1	** 0.40	** 0.1	26.70	3.8
<b>Total household expenditure</b>	<b>738.30</b>	<b>100.0</b>	<b>415.20</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>

*Household characteristics*

Average weekly household income (\$)	1 064.50	292.90	990.00
Average number of persons in the household	3.0	2.8	3.0
Average number of employed persons in the household	1.6	* 0.2	1.4
Number of households in sample	212	26	253
Estimated number of households in population	539	56	626

<sup>1</sup> Includes households whose main source of income comes from other earned income. This includes income from investments, rental properties, workers compensation or any other regular source of income.

# CHRISTMAS ISLAND

## 10 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TYPE

Broad expenditure group	Person living alone		Married; de facto couple		Married/de facto couple or one parent with children) <sup>1</sup>		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	35.60	8.3	49.00	6.8	35.50	4.4	38.00	5.4
Fuel and power	* 3.60	* 0.8	8.20	1.1	18.20	2.3	12.50	1.8
Food and non-alcoholic beverages	114.70	26.8	213.10	29.8	278.90	34.7	228.20	32.2
Alcoholic beverages	34.70	8.1	40.50	5.7	21.40	2.7	30.80	4.3
Tobacco	11.50	2.7	8.60	1.2	6.40	0.8	8.30	1.2
Clothing and footwear	* 7.10	* 1.7	** 30.00	* 4.2	19.20	2.4	17.40	2.5
Household furnishings and equipment	* 15.70	* 3.7	24.60	3.4	36.90	4.6	29.50	4.2
Household services and operations	12.50	2.9	27.20	3.8	46.40	5.8	33.80	4.8
Medical care and health expenses	* 10.20	* 2.4	19.50	2.7	20.90	2.6	19.40	2.7
Transport	35.00	8.2	47.10	6.6	62.70	7.8	57.50	8.1
Recreation	* 71.40	16.7	119.00	16.6	97.40	12.1	98.70	13.9
Personal care	6.50	1.5	13.00	1.8	11.90	1.5	10.90	1.5
Miscellaneous commodities and services	* 64.30	* 15.0	* 71.90	* 10.1	51.60	6.4	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>422.60</b>	<b>98.8</b>	<b>671.80</b>	<b>93.9</b>	<b>707.40</b>	<b>88.1</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments—principal (selected dwelling)	** 0.80	** 0.2	** 3.10	** 0.4	* 13.60	* 1.7	* 8.40	* 1.2
Other capital housing costs	** -12.20	** -2.8	** 3.00	** 0.4	53.90	6.7	* 31.70	4.5
Superannuation and life insurance	* 16.50	* 3.9	37.50	5.2	28.50	3.5	26.70	3.8
<b>Total household expenditure</b>	<b>427.80</b>	<b>100.0</b>	<b>715.40</b>	<b>100.0</b>	<b>803.40</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>

### Household characteristics

Average weekly household income (\$)	710.70	1 121.60	1 013.50	990.00
Average number of persons in the household	1.0	2.0	4.2	3.0
Average number of employed persons in the household	0.9	1.8	1.5	1.4
Number of households in sample	60	29	149	253
Estimated number of households in population	154	79	346	626

<sup>1</sup> Includes unmarried children of all ages.

<sup>2</sup> Includes all other households, which is comprised of those households with non-related household members and extended family households.

# CHRISTMAS ISLAND

## 11 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TENURE TYPE

Broad expenditure group	Owned; Being purchased		Rented		All households <sup>1</sup>	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	33.70	3.8	49.10	8.2	38.00	5.4
Fuel and power	20.50	2.3	7.10	1.2	12.50	1.8
Food and non-alcoholic beverages	299.70	33.5	176.30	29.6	228.20	32.2
Alcoholic beverages	17.80	2.0	41.40	6.9	30.80	4.3
Tobacco	5.10	0.6	10.80	1.8	8.30	1.2
Clothing and footwear	* 13.90	* 1.6	18.40	3.1	17.40	2.5
Household furnishings and equipment	44.30	5.0	21.90	3.7	29.50	4.2
Household services and operations	49.00	5.5	22.40	3.8	33.80	4.8
Medical care and health expenses	17.60	2.0	21.70	3.6	19.40	2.7
Transport	70.10	7.9	51.60	8.7	57.50	8.1
Recreation	100.90	11.3	95.20	16.0	98.70	13.9
Personal care	10.70	1.2	10.20	1.7	10.90	1.5
Miscellaneous commodities and services	62.20	7.0	53.40	9.0	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>745.60</b>	<b>83.5</b>	<b>579.60</b>	<b>97.2</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	* 24.90	* 2.8	—	—	* 8.40	* 1.2
Other capital housing costs	87.80	9.8	** -5.80	** 1.0	* 31.70	4.5
Superannuation and life insurance	35.20	3.9	22.30	3.7	26.70	3.8
<b>Total household expenditure</b>	<b>893.40</b>	<b>100.0</b>	<b>596.10</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	939.40		991.00		990.00	
Average number of persons in the household	4.2		2.2		3.0	
Average number of employed persons in the household	1.5		1.4		1.4	
Number of households in sample	96		125		253	
Estimated number of households in population	211		337		626	

Includes those households who are living rent free or in strata titled units.

# CHRISTMAS ISLAND

## 12 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY NUMBER OF USUAL RESIDENTS IN HOUSEHOLD

Broad expenditure group	One usual resident		Two to four usual residents		Five or more usual residents		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	35.60	8.3	38.80	5.1	38.50	4.3	38.00	5.4
Fuel and power	* 3.60	* 0.8	12.50	1.6	23.90	2.7	12.50	1.8
Food and non-alcoholic beverages	114.70	26.8	242.80	31.7	328.90	36.7	228.20	32.2
Alcoholic beverages	34.70	8.1	36.50	4.8	9.80	1.1	30.80	4.3
Tobacco	11.50	2.7	7.80	1.0	5.60	0.6	8.30	1.2
Clothing and footwear	* 7.10	* 1.7	22.60	2.9	* 15.50	* 1.7	17.40	2.5
Household furnishings and equipment	* 15.70	* 3.7	31.80	4.2	40.40	4.5	29.50	4.2
Household services and operations	12.50	2.9	39.80	5.2	43.30	4.8	33.80	4.8
Medical care and health expenses	* 10.20	* 2.4	23.90	3.1	18.40	2.1	19.40	2.7
Transport	35.00	8.2	63.30	8.3	69.10	7.7	57.50	8.1
Recreation	* 71.40	16.7	117.60	15.3	79.20	8.8	98.70	13.9
Personal care	6.50	1.5	12.50	1.6	11.90	1.3	10.90	1.5
Miscellaneous commodities and services	* 64.30	* 15.0	53.50	7.0	57.40	6.4	56.90	8.0
<b>Total commodity and service expenditure</b>	<b>422.60</b>	<b>98.8</b>	<b>703.40</b>	<b>91.8</b>	<b>742.00</b>	<b>82.8</b>	<b>641.80</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	** 0.80	** 0.2	** 11.40	** 1.5	* 9.30	* 1.0	* 8.40	* 1.2
Other capital housing costs	**-12.20	** -2.8	* 22.70	* 3.0	112.30	12.5	* 31.70	4.5
Superannuation and life insurance	*16.50	* 3.9	29.00	3.8	32.90	3.7	26.70	3.8
<b>Total household expenditure</b>	<b>427.80</b>	<b>100.0</b>	<b>766.50</b>	<b>100.0</b>	<b>896.40</b>	<b>100.0</b>	<b>708.60</b>	<b>100.0</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	710.70		1 118.60		976.00		990.00	
Average number of persons in the household	1.0		3.0		5.5		3.0	
Average number of employed persons in the household	0.9		1.7		1.4		1.4	
Number of households in sample	60		136		57		253	
Estimated number of households in population	154		349		123		626	

**COCOS (KEELING) ISLANDS**

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Home Island



West Island



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Kilometres

# COCOS (KEELING) ISLANDS

## INTRODUCTION

The following provides a summary of findings for Christmas Island as derived from the Spending and Income Survey (SIS). It contains information about the demographic characteristics of Island residents, together with details of their household expenditure.

## DEMOGRAPHIC CHARACTERISTICS

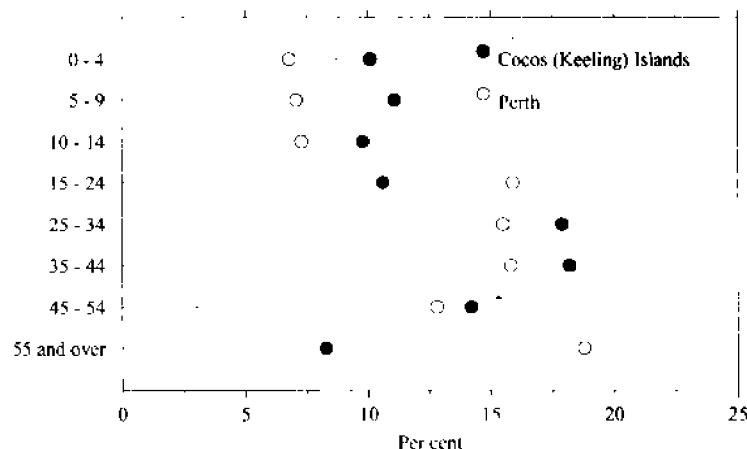
### Estimated Resident Population

As in Table 1 for Christmas Island, the Estimated Resident Population (ERP) figures for the Cocos (Keeling) Islands were calculated using information obtained from the SIS. Household members were included in the estimates if they had lived on the Islands for six months or more, or if they intended to live on the Islands for six months or more. The estimates exclude persons who were short term visitors to either non-private dwellings (i.e. the West Island Lodge) or private dwellings (with or without usual residents).

Table 13 shows that the estimated number of persons resident on the Cocos (Keeling) Islands in September 1995 was 605. Of these, 286 were male (47.3%) and 319 were female (52.7%). These proportions are fairly consistent with the corresponding percentages for Perth in June 1995 (49.5% male and 50.5% female), as shown in Table 14.

A comparison of the ERP of the Cocos (Keeling) Islands and Perth shows that the age distribution of Island residents was very different from that of Perth residents. On the Cocos (Keeling) Islands, the proportion of the population in the 0 to 14 year age group was 31.0%, whereas in Perth it was much lower at 21.2%. The proportion of the population in the 15 to 24 year age group on the Cocos (Keeling) Islands was 10.6% compared with 15.9% in Perth. The proportion of residents in the 55 years and over age group was much lower on the Islands than in Perth (8.3% compared with 18.8%).

### ESTIMATED RESIDENT POPULATION BY AGE GROUP<sup>1</sup>



<sup>1</sup> Estimated Resident Population figures for the Cocos (Keeling) Islands relate to September 1995, while for Perth they relate to June 1995.

**COCOS (KEELING) ISLANDS**

**13 ESTIMATED RESIDENT POPULATION BY AGE AND SEX, COCOS (KEELING)  
ISLANDS, SEPTEMBER 1995**

Age group	Males		Females		Persons	
	No.	%	No.	%	No.	%
0 - 4	31	10.8	30	9.4	61	10.1
5 - 9	20	7.0	47	14.7	67	11.1
10 - 14	32	11.2	27	8.5	59	9.8
15 - 24	27	9.4	37	11.6	64	10.6
25 - 34	43	15.0	65	20.3	108	17.9
35 - 44	59	20.6	51	16.0	110	18.2
45 - 54	47	16.4	39	12.2	86	14.2
55 and over	27	9.4	23	7.2	50	8.3
<b>Total</b>	<b>286</b>	<b>100.0</b>	<b>319</b>	<b>100.0</b>	<b>605</b>	<b>100.0</b>

**14 ESTIMATED RESIDENT POPULATION BY AGE AND SEX, PERTH<sup>1</sup>, JUNE 1995**

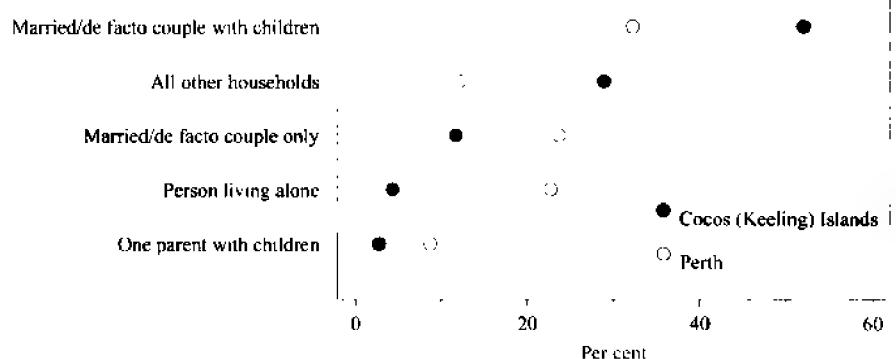
Age group	Males		Females		Persons	
	No.	%	No.	%	No.	%
0 - 4	44 200	7.1	42 000	6.6	86 200	6.8
5 - 9	45 800	7.3	43 300	6.8	89 100	7.1
10 - 14	47 800	7.6	45 000	7.1	92 800	7.3
15 - 24	101 200	16.2	99 000	15.5	200 200	15.9
25 - 34	97 800	15.6	98 600	15.5	196 300	15.5
35 - 44	97 900	15.7	101 600	15.9	199 500	15.8
45 - 54	82 000	13.1	79 200	12.4	161 200	12.8
55 and over	108 900	17.4	128 400	20.2	237 300	18.8
<b>Total</b>	<b>625 500</b>	<b>100.0</b>	<b>637 100</b>	<b>100.0</b>	<b>1 262 600</b>	<b>100.0</b>

<sup>1</sup> Perth Statistical Division. Source : Estimated Resident Population by Age and Sex in Statistical Local Areas, Western Australia, 30 June 1995 (ABS Cat No. 3203.5).

## COCOS (KEELING) ISLANDS

- Household composition Considerable differences were found between the household composition on the Cocos (Keeling) Islands and Perth. Table 15 shows that on the Cocos (Keeling) Islands, more than half of the households comprised a couple household living only with their unmarried child(ren). In Perth, 35.4% of households were in this category.
- A further 29.0% of households on the Cocos (Keeling) Islands consisted of extended families only. Whereas the category 'all other households' refers exclusively to extended families on the Cocos (Keeling) Islands, the 10.7% of Perth households in this category refers to any household type not included in the other four categories. Apart from extended families, this could include households with unrelated individuals or households with some related and some unrelated individuals.
- On the Cocos (Keeling) Islands only 4.4% of households were identified as consisting of a person living alone, whereas in Perth the proportion was much higher at 22.8%. There were a smaller proportion of households with a married or de facto couple only on the Cocos (Keeling) Islands than in Perth (11.8% and 23.8% respectively). In addition, there were a smaller proportion of one parent families on the Cocos (Keeling) Islands than in Perth (2.8% compared with 7.3% respectively).

### HOUSEHOLD COMPOSITION<sup>1</sup>



<sup>1</sup> Household composition figures for the Cocos (Keeling) Islands relate to September 1995, while for Perth they relate to 1993-94.

## 15 HOUSEHOLD COMPOSITION

Household composition	Cocos (Keeling) Islands <sup>1</sup>		Perth <sup>2</sup>	
	No.	%	No.	%
Person living alone	6	4.4	110 700	22.8
Married/de facto couple only	17	11.8	115 600	23.8
Married/de facto couple living only with their unmarried child(ren)	74	52.1	157 400	32.4
One parent living only with his/her unmarried child(ren)	4	2.8	43 000	8.8
All other households <sup>3</sup>	41	29.0	59 100	12.2
<b>All households</b>	<b>142</b>	<b>100.0</b>	<b>485 900</b>	<b>100.0</b>

<sup>1</sup> Household composition figures for the Cocos (Keeling) Islands relate to September 1995.

<sup>2</sup> Source: Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0).

<sup>3</sup> Cocos (Keeling) Island households in this category consisted of extended families only. The Perth figure refers to all other households, including extended families.

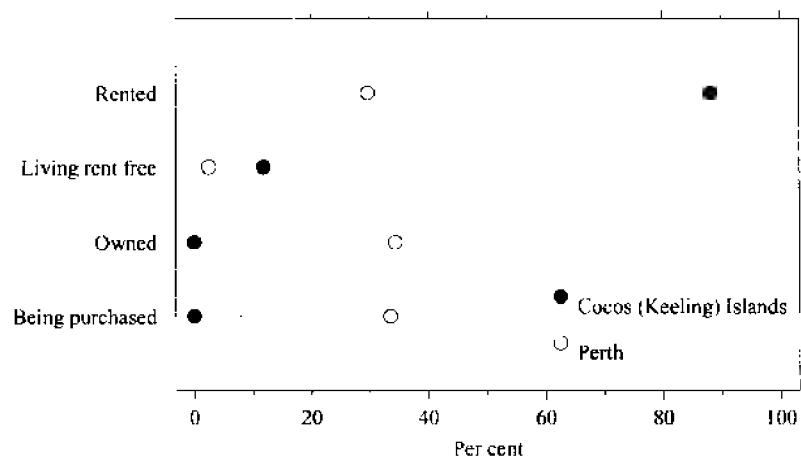
## COCOS (KEELING) ISLANDS

### Household tenure type

Tenure characteristics of households on the Cocos (Keeling) Islands were very different to those of Perth households, as shown in Table 16. There were no households on the Cocos (Keeling) Islands who owned, or were in the process of purchasing, their own dwelling. In Perth, the majority of households (67.8%) either owned or were in the process of purchasing their dwelling.

The majority of households on the Cocos (Keeling) Islands were renting their dwelling (88.2%). The corresponding proportion of households that were renting their dwelling in Perth was 29.7%. A high proportion of households on the Cocos (Keeling) Islands were living rent free (11.8%) in comparison with Perth (2.5%).

### HOUSEHOLD TENURE TYPE<sup>1</sup>



<sup>1</sup> Household tenure figures for the Cocos (Keeling) Islands relate to September 1995, while for Perth they relate to 1993-94.

## 16 HOUSEHOLD TENURE TYPE

Tenure type	Cocos (Keeling) Islands <sup>1</sup>		Perth <sup>2</sup>	
	No.	%	No.	%
Owned	..	-	166 700	34.3
Being purchased	..	-	162 800	33.5
Rented	125	88.2	144 300	29.7
Living rent free	17	11.8	12 100	2.5
<b>All households</b>	<b>142</b>	<b>100.0</b>	<b>485 900</b>	<b>100.0</b>

<sup>1</sup> Household tenure figures for the Cocos (Keeling) Islands relate to September 1995.

<sup>2</sup> Source : Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0).

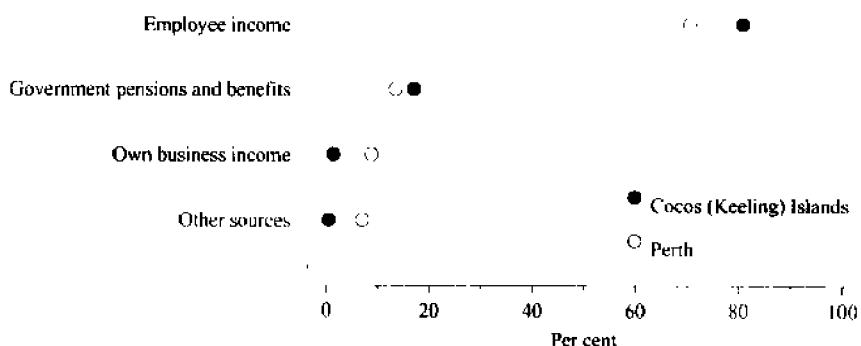
## COCOS (KEELING) ISLANDS

Source of household income Total household income is derived from various sources. These sources include employee income, own business income, income from government pensions and benefits and other sources of income. Table 17 shows the proportion of total household income that was derived from these sources.

The greatest source of household income on both the Cocos (Keeling) Islands and in Perth was employee income. On the Cocos (Keeling) Islands, just over 80% of total household income was attributable to employee income, whereas in Perth, the corresponding proportion was 70.6%. Government pensions and benefits made up 17.2% of total household income on the Cocos (Keeling) Islands. The corresponding proportion in Perth was slightly lower at 13.5%.

The proportion of total household income attributable to own business income and other sources, was much lower on the Cocos (Keeling) Islands (1.9%) than in Perth (15.9%).

### SOURCE OF HOUSEHOLD INCOME<sup>1</sup>



<sup>1</sup> Source of household income figures for the Cocos (Keeling) Islands relate to September 1995, while for Perth they relate to 1993-94.

## 17 SOURCE OF HOUSEHOLD INCOME

Source of income	Cocos (Keeling) Islands <sup>1</sup>		Perth <sup>2</sup>	
	%		%	
Employee income	80.9		70.6	
Own business income	1.4		8.9	
Government pensions and benefits	17.2		13.5	
Other sources <sup>3</sup>	0.5		7.0	
<b>Total household income</b>	<b>100.0</b>		<b>100.0</b>	

<sup>1</sup> Source of household income figures for the Cocos (Keeling) Islands relate to September 1995

<sup>2</sup> Source: Household Income and Expenditure Survey, Australia, 1993-94 (ABS Cat No. 6533.0).

<sup>3</sup> Other sources of household income includes income from investments, financial institution interest, rental properties, workers compensation and any other regular source of income.

# COCOS (KEELING) ISLANDS

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## HOUSEHOLD EXPENDITURE AND CHARACTERISTICS

Household expenditure and characteristics, Cocos (Keeling) Islands and Perth

Table 18 shows that the total household expenditure on the Cocos (Keeling) Islands was \$626.20 compared with \$749.20 in Perth. There were 142 households on the Cocos (Keeling) Islands, with an average of 4.0 persons per household. In Perth, the average number of persons per household was 2.6.

Households on the Cocos (Keeling) Islands spent 2.3% of their total household expenditure on transport. This was much lower than the 13.6% of total household expenditure spent by Perth residents on transport. The main reason for this difference was the low vehicle ownership on the Cocos (Keeling) Islands (31.0% of all households reported owning at least one vehicle compared with 89.7% in Perth). Consequently, there was less expenditure on vehicle related expenses such as vehicle servicing, motor vehicle accessories, subscriptions to motor vehicle associations, etc. In addition, as there were no taxis or public transport on the Cocos (Keeling) Islands (other than a free ferry service that operated between Home and West Islands), there were no related fees reported.

The average weekly household expenditure on clothing and footwear on the Cocos (Keeling) Islands was \$13.70 in comparison with \$32.80 in Perth. The main reason for the lower expenditure on clothing and footwear on the Islands could be attributed to the tropical climate there. This results in little or no expenditure on clothing such as coats, jumpers, jeans and cardigans and minimal expenditure on most types of footwear. In addition, anecdotal evidence suggests that many of the residents of the Cocos (Keeling) Islands make their own clothes.

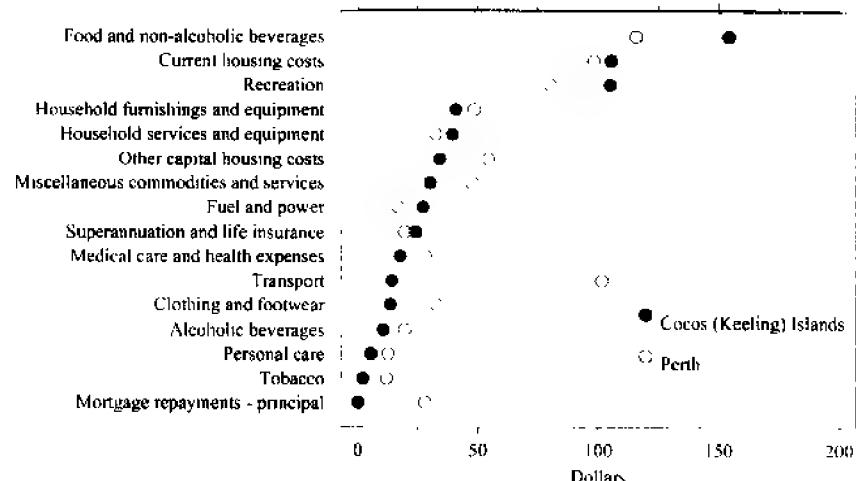
The average weekly household expenditure on food and non-alcoholic beverages on the Cocos (Keeling) Islands was \$154.30, corresponding to 24.6% of total household expenditure. In Perth, the average weekly household expenditure on food and non-alcoholic beverages was lower at \$115.80 (corresponding to 15.5% of total household expenditure).

As there was no home ownership on either Home or West Island, there was consequently no expenditure on mortgage repayments – principal (selected dwelling). In Perth, expenditure on this broad expenditure group made up 3.7% of total household expenditure.

The average weekly household income on the Cocos (Keeling) Islands was \$926.40 compared with \$765.00 in Perth. The reason for this difference was mainly due to a larger proportion of households on the Cocos (Keeling) Islands which reported high earnings. The average number of employed persons per household was 1.5 on the Cocos (Keeling) Islands in comparison with 1.2 in Perth.

# COCOS (KEELING) ISLANDS

## AVERAGE WEEKLY HOUSEHOLD EXPENDITURE, COCOS (KEELING) ISLANDS AND PERTH



Household expenditure and characteristics, Region

As shown in Table 19, the total household expenditure was \$614.90 for residents on Home Island and \$648.50 for residents on West Island. Although the total household expenditure was similar between Home and West Island residents, the distribution of the expenditure was not.

Households on Home Island spent an average of \$135.50 a week on current housing costs (selected dwelling) (corresponding to 22.0% of their total household expenditure). This was much higher than the corresponding amount spent by West Island households (an average of \$47.20 a week corresponding to only 7.3% of their total household expenditure). The two main commodities in the group current housing costs (selected dwelling) that contributed to this difference were rent payments and repairs and maintenance payments. Households on Home Island spent about twice as much as households on West Island on rent payments and they spent an average of \$27.30 a week on repairs and maintenance – materials only, whereas there was no reported expenditure on this commodity on West Island.

Home Island households did not report any expenditure on alcoholic beverages, and minimal expenditure on tobacco. This was mainly due to the religious beliefs of Home Island residents. In contrast, West Island residents spent an average of \$31.30 a week on alcoholic beverages and \$3.90 a week on tobacco, which represents 5.4% of their total household expenditure.

Households on West Island spent an average of \$131.90 a week on recreation (accounting for 20.3% of their total household expenditure), while Home Island households spent an average of \$91.40 a week on recreation (accounting for 14.9% of their total household expenditure). Superannuation and life insurance made up 5.6% of total household expenditure for households on West Island, whereas it made up 3.0% of total household expenditure for households on Home Island.

The average weekly household income of Home Island residents was lower at \$897.30 than West Island residents (\$983.60). While the average number of persons in Home Island households was much higher than the number in West Island households (4.5 compared with 3.0), the average number of employed persons per household was only slightly higher for West Island households (1.6 compared with 1.5).

## COCOS (KEELING) ISLANDS

Household expenditure and characteristics, Household income group

Table 20 shows that the total household expenditure was \$592.00 for the lowest income group, \$580.60 for the middle income group and \$713.70 for the highest income group on the Cocos (Keeling) Islands. The average number of persons per household was 3.4 for the lowest income group, 4.0 for the middle income group and 4.5 for the upper income group.

The average weekly household expenditure on food and non-alcoholic beverages was \$129.50 for the lowest income group compared with \$180.40 a week for the highest income group. Households in the middle income group spent an average of \$6.20 a week on clothing and footwear, while the highest income group spent an average of \$23.50 a week.

The average weekly household income was \$564.30 a week for the lowest income group, \$893.10 for the middle income group and \$1,365.30 for the highest income group. The average number of employed persons for each of these groups was 1.1, 1.5 and 2.0 respectively.

The average weekly household income for households in the lowest income group appears to be lower at \$564.30 than the total household expenditure for this group (\$592.00). This apparent discrepancy could be due to a number of different factors and is not inconsistent with similar findings from the Australian Household Income and Expenditure Survey (HIES) results. Firstly, as the estimates in this publication are based on a sample of possible observations, they are subject to sampling variability and estimates may differ from the figures that would have been produced if information had been collected for all households on the Cocos (Keeling) Islands.

If the standard errors in this particular example are used to calculate confidence intervals, then it can be seen that there is a 95% chance that the true average weekly household income falls between \$534.50 and \$594.10. Furthermore, there is a 95% chance that the true total household expenditure falls between \$535.80 and \$648.20. Since the two confidence intervals overlap, the true average weekly household income may not in reality have been lower than the total household expenditure (for further information, see Technical notes on page 84).

A second contributing factor to this apparent discrepancy is the way in which income and expenditure have been collected in this Survey. Expenditure estimates for different items refer to different periods as do income estimates for different sources of income. Expenditure does not cover all current payments (e.g. residents may use past savings to finance current expenditure) and income does not cover all possible sources of income (for further information, see Difference between income and expenditure on page 80).

Household expenditure and characteristics, Principal source of household income

Table 21 shows that 88.7% of households received the majority of their income from wages and salaries. A further 9.8% received the majority of their income from government pensions and benefits, and the remainder received the majority of their income from other sources (including income from investments, rental properties, workers compensation and any other regular source of income). As there were only nine households in the Cocos (Keeling) Islands sample whose main source of income came from government pensions and benefits, the estimates for this sub-population have high standard errors and hence must be used with extreme caution.

The total household expenditure for households whose principal source of income was derived from wages and salaries was higher at \$640.50 than that for those households whose principal source of income was derived from government pensions and benefits (\$517.90).

## COCOS (KEELING) ISLANDS

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An average of \$108.80 a week was spent on recreation by those households whose main source of income came from wages and salaries. This corresponded to 17.0% of their total household expenditure. For those households whose main source of income was derived from government pensions and benefits, 14.1% of their total income was spent on recreation (corresponding to an average of \$73.10 a week). Those households whose main source of income came from wages and salaries spent an average of \$11.90 a week on alcoholic beverages, compared with an insignificant amount spent by those households whose main source of income was derived from government pensions and benefits.

The average weekly household income of households whose main source of income came from wages and salaries was \$964.80. This amount was higher than the corresponding figure for those households whose main source of income came from government pensions and benefits (\$542.50).

Household expenditure  
and characteristics,  
Household type

The total household expenditure for households with a married/de facto couple or one parent with child(ren) was \$589.60 compared with \$670.80 for all other households (as shown in Table 22). The number of households with a married/de facto couple or one parent with child(ren) on the Cocos (Keeling) Islands was 78, which corresponded to 54.9% of all households.

Households with a married/de facto couple or one parent with child(ren) spent an average of \$7.80 a week on clothing and footwear. This was lower than the average of \$20.80 a week spent by other households on clothing and footwear. Households with a married/de facto couple or one parent with child(ren) spent an average of \$78.30 a week on recreation expenses in comparison with an average of \$137.60 a week spent by other households.

The average weekly household expenditure on food and non-alcoholic beverages was \$139.40 for those households with a married/de facto couple or one parent with child(ren) compared with an average of \$172.30 a week for other households. The proportion of total household expenditure for this commodity group was fairly consistent across the two groups (23.6% and 25.7% respectively).

The average weekly household income was lowest for those households with a married/de facto couple or one parent with child(ren) (\$785.70). For other households, the corresponding figure was \$1,097.40. However, the average number of employed persons in those households with a married/de facto couple or one parent with child(ren) was 1.4, which was lower than the corresponding figure for other households (1.7) on the Islands.

## COCOS (KEELING) ISLANDS

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Household expenditure and characteristics, Number of usual residents in household

On the Cocos (Keeling) Islands, the total household expenditure was \$571.10 for those households with less than five usual residents, as shown in Table 23. This was lower than the corresponding figure for those households with five or more usual residents (\$730.60). The majority of households on the Cocos (Keeling) Islands (65.5%) had less than five usual residents, with the average number of persons in these households being 3.0. For those households with five or more usual residents, the average number of persons per household was 5.9, but the average number of employed persons in these households was 1.6.

Households with less than five usual residents spent an average of \$135.20 a week on food and non-alcoholic beverages, whereas the corresponding average for those households with five or more usual residents was \$190.40. Households with five or more usual residents also spent more on current housing costs (selected dwelling) than those households with less than five usual residents (\$138.90 a week compared with \$88.10 a week).

Households with less than five usual residents spent an average of \$15.80 a week on alcoholic beverages compared with an insignificant amount spent by those households with five or more usual residents. Households with less than five usual residents also spent more on medical care and health expenses than those households with five or more usual residents (an average of \$21.60 and \$10.80 a week respectively).

The average weekly household income for those households with less than five usual residents was \$853.80, which was lower than the corresponding figure of \$1,064.00 for those households with five or more usual residents.

Household expenditure and characteristics, Whether household caught or grew goods

Table 24 shows that almost 65.0% of households on the Cocos (Keeling) Islands caught or grew goods. This included catching fish, gathering eggs and coconuts, collecting firewood for fuel and growing fruits and vegetables. Of these 92 households, an estimated 85.2% caught fish, 24.7% gathered eggs and 18.2% collected firewood for fuel. These percentages should not be added since it is possible for a particular household to catch or grow more than one of these commodities.

The total household expenditure for households which caught or grew their own goods was an average of \$657.60 a week, compared with \$568.30 for those households which did not catch or grow their own goods. The average weekly household expenditure on food and non-alcoholic beverages was \$163.20 for those households which caught or grew their own goods. This compares with \$137.70 for those households which do not catch or grow their own goods.

Those households which caught or grew goods spent more on current housing costs (selected dwelling) (\$120.10) than households which did not catch or grow their own goods (\$79.00). The expenditure on most of the other commodity groups was consistent between the two groups of households.

The average weekly household income was similar for those households which caught or grew goods as for those households which did not catch or grow goods. The average number of persons in these households was 4.2 and 3.6 respectively.

# COCOS (KEELING) ISLANDS

## 18 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, COCOS (KEELING) ISLANDS AND PERTH

Broad expenditure group	Cocos (Keeling) Islands		Perth <sup>1</sup>	
	\$	%	\$	%
Average weekly household expenditure				
Current housing costs (selected dwelling)	105.70	16.9	98.50	13.1
Fuel and power	27.20	4.3	16.80	2.2
Food and non-alcoholic beverages	154.30	24.6	115.80	15.5
Alcoholic beverages	10.60	1.7	19.60	2.6
Tobacco	2.30	0.4	11.90	1.6
Clothing and footwear	13.70	2.2	32.80	4.4
Household furnishings and equipment	41.10	6.6	48.60	6.5
Household services and operations	39.70	6.3	32.60	4.3
Medical care and health expenses	17.80	2.8	28.30	3.8
Transport	* 14.30	* 2.3	101.60	13.6
Recreation	105.10	16.8	80.30	10.7
Personal care	5.60	0.9	12.60	1.7
Miscellaneous commodities and services	30.30	4.8	47.60	6.4
<b>Total commodity and service expenditure</b>	<b>567.50</b>	<b>90.6</b>	<b>647.20</b>	<b>86.4</b>
Mortgage repayments—principal (selected dwelling)	—	—	28.10	3.7
Other capital housing costs	* 34.30	* 5.5	* 54.40	* 7.3
Superannuation and life insurance	24.40	3.9	19.60	2.6
<b>Total household expenditure</b>	<b>626.20</b>	<b>100.0</b>	<b>749.20</b>	<b>100.0</b>
Household characteristics				
Average weekly household income (\$)	926.40		765.00	
Average number of persons in the household	4.0		2.6	
Average number of employed persons in the household	1.5		1.2	
Number of households in sample	97		536	
Estimated number of households in population	142		485 900	

<sup>1</sup> Average weekly household expenditure estimates for Perth have been updated from the 1993-94 Household Income and Expenditure Survey figures to September 1995 figures using appropriate index numbers from the Consumer Price Index (ABS Cat No. 6401.0) and the House Price Index (ABS Cat No. 6416.0). The average weekly household income figure for Perth has been updated using Average Weekly Earnings estimates (ABS Cat No. 6302.0).

# COCOS (KEELING) ISLANDS

## 19 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION

Broad expenditure group	Home Island		West Island		All households	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	135.50	22.0	47.20	7.3	105.70	16.9
Fuel and power	28.00	4.5	25.70	4.0	27.20	4.3
Food and non-alcoholic beverages	150.30	24.4	162.00	25.0	154.30	24.6
Alcoholic beverages	—	—	31.30	4.8	10.60	1.7
Tobacco	* 1.40	* 0.2	3.90	0.6	2.30	0.4
Clothing and footwear	11.50	* 1.9	17.90	2.8	13.70	2.2
Household furnishings and equipment	46.50	7.6	30.50	4.7	41.10	6.6
Household services and operations	33.80	5.5	51.10	7.9	39.70	6.3
Medical care and health expenses	11.10	1.8	31.00	4.8	17.80	2.8
Transport	29.60	4.8	** 15.50	** -2.4	* 14.30	* 2.3
Recreation	91.40	14.9	131.90	20.3	105.10	16.8
Personal care	4.70	0.8	7.30	1.1	5.60	0.9
Miscellaneous commodities and services	* 8.70	* 1.4	72.60	11.2	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>552.50</b>	<b>89.9</b>	<b>596.90</b>	<b>92.1</b>	<b>567.50</b>	<b>90.6</b>
Mortgage repayments principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	44.00	7.2	** 15.40	** 2.4	* 34.3	* 5.5
Superannuation and life insurance	18.40	3.0	36.20	5.6	24.40	3.9
<b>Total household expenditure</b>	<b>614.90</b>	<b>100.0</b>	<b>648.50</b>	<b>100.0</b>	<b>626.20</b>	<b>100.0</b>
Household characteristics						
Average weekly household income (\$)	897.30		983.60		926.40	
Average number of persons in the household		4.5		3.0		4.0
Average number of employed persons in the household		1.5		1.6		1.5
Number of households in sample		54		43		97
Estimated number of households in population		94		48		142

# COCOS (KEELING) ISLANDS

## 20 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD INCOME GROUP

Broad expenditure group	Lowest third		Middle third		Highest third		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	111.10	18.8	93.10	16.0	113.20	15.9	105.70	16.9
Fuel and power	25.20	4.3	29.20	5.0	27.10	3.8	27.20	4.3
Food and non-alcoholic beverages	129.50	21.9	155.50	26.8	180.40	25.3	154.30	24.6
Alcoholic beverages	11.80	2.0	8.20	1.4	11.80	1.6	10.60	1.7
Tobacco	* 2.30	* 0.4	1.90	0.3	2.80	0.4	2.30	0.4
Clothing and footwear	12.10	2.0	6.20	1.1	23.50	* 3.3	13.70	2.2
Household furnishings and equipment	50.40	8.5	39.30	6.8	32.50	4.6	41.10	6.6
Household services and operations	33.00	5.6	31.60	5.5	55.80	7.8	39.70	6.3
Medical care and health expenses	13.70	2.3	19.70	3.4	20.40	2.9	17.80	2.8
Transport	26.40	4.5	* 12.00	* 2.1	** 3.40	** 0.5	* 14.30	* 2.3
Recreation	73.90	12.5	84.00	14.5	* 162.60	22.8	105.10	16.8
Personal care	4.60	0.8	3.00	0.5	9.40	1.3	5.60	0.9
Miscellaneous commodities and services	7.90	1.3	49.40	8.5	34.50	4.8	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>501.90</b>	<b>84.8</b>	<b>533.30</b>	<b>91.9</b>	<b>677.50</b>	<b>94.9</b>	<b>587.50</b>	<b>90.6</b>
Mortgage repayments - principal (selected dwelling)	—	—	—	—	—	—	—	—
Other capital housing costs	* 67.90	11.5	** 26.10	** 4.5	** 5.80	** 0.8	* 34.30	* 5.5
Superannuation and life insurance	22.20	3.7	21.10	3.6	30.40	4.3	24.40	3.9
<b>Total household expenditure</b>	<b>592.00</b>	<b>100.0</b>	<b>580.60</b>	<b>100.0</b>	<b>713.70</b>	<b>100.0</b>	<b>626.20</b>	<b>100.0</b>
<i>Household characteristics</i>								
Upper boundary of income group (\$)	713.60		1 057.30		..		..	
Average weekly household income (\$)	564.30		893.10		1 365.30		926.40	
Average number of persons in the household	3.4		4.0		4.5		4.0	
Average number of employed persons in the household	1.1		1.5		2.0		1.5	
Number of households in sample	32		33		32		97	
Estimated number of households in population	49		48		44		142	

# COCOS (KEELING) ISLANDS

## 21 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY PRINCIPAL SOURCE OF HOUSEHOLD INCOME

Broad expenditure group	Wages and salaries		Government pensions and benefits		All households <sup>1</sup>	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	106.60	16.6	105.60	20.4	105.70	16.9
Fuel and power	27.90	4.4	21.40	4.1	27.20	4.3
Food and non-alcoholic beverages	155.60	24.3	140.40	27.1	154.30	24.6
Alcoholic beverages	11.90	1.9	* 0.20	—	10.60	1.7
Tobacco	2.20	0.3	* 2.90	* 0.6	2.30	0.4
Clothing and footwear	14.40	2.2	* 8.50	* 1.6	13.70	2.2
Household furnishings and equipment	39.90	6.2	54.10	10.4	41.10	6.6
Household services and operations	39.50	6.2	38.80	7.5	39.70	6.3
Medical care and health expenses	18.80	2.9	* 10.50	2.0	17.80	2.8
Transport	* 12.60	* 2.0	* 30.40	* 5.9	* 14.30	* 2.3
Recreation	108.80	17.0	73.10	14.1	105.10	16.8
Personal care	5.70	0.9	* 5.10	* 1.0	5.60	0.9
Miscellaneous commodities and services	33.50	5.2	* 3.80	* 0.7	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>577.30</b>	<b>90.1</b>	<b>494.70</b>	<b>95.5</b>	<b>567.50</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	* 36.30	* 5.7	** 19.40	** 3.8	* 34.30	* 5.5
Superannuation and life insurance	26.90	4.2	* 3.80	* 0.7	24.40	3.9
<b>Total household expenditure</b>	<b>640.50</b>	<b>100.0</b>	<b>517.90</b>	<b>100.0</b>	<b>526.23</b>	<b>100.0</b>

### Household characteristics

Average weekly household income (\$)	964.80	542.50	926.40
Average number of persons in the household	4.0	4.1	4.0
Average number of employed persons in the household	1.6	0.8	1.5
Number of households in sample	87	9	97
Estimated number of households in population	126	14	142

<sup>1</sup> Includes households whose main source of income comes from other earned income. This includes income from investments, rental properties, workers compensation or any other regular source of income.

# COCOS (KEELING) ISLANDS

## 22 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TYPE

Broad expenditure group	Married/de facto couple or one parent with child(ren) <sup>1</sup>		All other households		All households	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	117.40	19.9	91.30	13.6	105.70	16.9
Fuel and power	27.80	4.7	26.50	3.9	27.20	4.3
Food and non-alcoholic beverages	139.40	23.6	172.30	25.7	154.30	24.6
Alcoholic beverages	8.00	1.4	13.80	2.1	10.60	1.7
Tobacco	1.10	0.2	3.70	0.6	2.30	0.4
Clothing and footwear	7.80	1.3	20.80	3.1	13.70	2.2
Household furnishings and equipment	48.60	8.2	32.00	4.8	41.10	6.6
Household services and operations	34.50	5.9	45.90	6.8	39.70	6.3
Medical care and health expenses	15.50	2.6	20.70	3.1	17.80	2.8
Transport	** 8.80	** 1.5	21.10	3.1	* 14.30	* 2.3
Recreation	78.30	13.3	137.60	20.5	105.10	16.8
Personal care	6.60	1.1	4.20	0.6	5.60	0.9
Miscellaneous commodities and services	30.30	5.1	30.30	4.5	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>524.10</b>	<b>88.9</b>	<b>620.30</b>	<b>92.5</b>	<b>567.50</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	* 42.20	* 7.2	* 24.70	* 3.7	* 34.30	* 5.5
Superannuation and life insurance	23.20	3.9	25.80	3.8	24.40	3.9
<b>Total household expenditure</b>	<b>589.60</b>	<b>100.0</b>	<b>670.80</b>	<b>100.0</b>	<b>626.20</b>	<b>100.0</b>

### Household characteristics

Average weekly household income (\$)	785.70	1 097.40	926.40
Average number of persons in the household	3.7	4.3	4.0
Average number of employed persons in the household	1.4	1.7	1.5
Number of households in sample	53	44	97
Estimated number of households in population	78	64	142

<sup>1</sup> Includes unmarried child(ren) of all ages.

**COCOS (KEELING) ISLANDS**

**23 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY NUMBER OF USUAL RESIDENTS IN HOUSEHOLD**

Broad expenditure group	Less than five usual residents		Five or more usual residents		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	88.10	15.4	138.90	19.0	105.70	16.9
Fuel and power	26.40	4.6	28.60	3.9	27.20	4.3
Food and non-alcoholic beverages	135.20	23.7	190.40	26.1	154.30	24.6
Alcoholic beverages	15.80	2.8	* 0.70	* 0.1	10.60	1.7
Tobacco	1.80	0.3	3.20	0.4	2.30	0.4
Clothing and footwear	11.70	2.0	* 17.40	* 2.4	13.70	2.2
Household furnishings and equipment	40.90	7.2	41.40	5.7	41.10	6.6
Household services and operations	41.20	7.2	36.80	5.0	39.70	6.3
Medical care and health expenses	21.60	3.8	10.80	1.5	17.80	2.8
Transport	** 6.30	** 1.1	29.50	4.0	* 14.30	* 2.3
Recreation	92.50	16.2	* 129.00	17.7	105.10	16.8
Personal care	5.30	0.9	6.10	0.8	5.60	0.9
Miscellaneous commodities and services	26.00	4.6	* 38.40	* 5.3	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>512.70</b>	<b>89.8</b>	<b>671.20</b>	<b>91.9</b>	<b>567.50</b>	<b>90.6</b>
Mortgage repayments – principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	* 29.10	* 5.1	* 44.30	* 6.1	* 34.30	* 5.5
Superannuation and life insurance	29.30	5.1	15.10	2.1	24.40	3.9
<b>Total household expenditure</b>	<b>571.10</b>	<b>100.0</b>	<b>730.60</b>	<b>100.0</b>	<b>626.20</b>	<b>100.0</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	853.80		1 064.00		926.40	
Average number of persons in the household	3.0		5.9		4.0	
Average number of employed persons in the household	1.5		1.6		1.5	
Number of households in sample	67		30		97	
Estimated number of households in population	93		49		142	

**COCOS (KEELING) ISLANDS**

**24 HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY WHETHER HOUSEHOLD CAUGHT OR GREW GOODS**

Broad expenditure group	Household caught or grew goods		Household did not catch or grow goods		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	120.10	18.3	79.00	13.9	105.70	16.9
Fuel and power	27.90	4.2	25.90	4.6	27.20	4.3
Food and non-alcoholic beverages	163.20	24.8	137.70	24.2	154.30	24.6
Alcoholic beverages	9.60	1.5	12.50	2.2	10.60	1.7
Tobacco	2.20	0.3	2.40	0.4	2.30	0.4
Clothing and footwear	12.80	1.9	* 15.20	* 2.7	13.70	2.2
Household furnishings and equipment	43.60	6.6	36.40	6.4	41.10	6.6
Household services and operations	38.30	5.8	42.10	7.4	39.70	6.3
Medical care and health expenses	17.10	2.6	19.30	3.4	17.80	2.8
Transport	* 15.9	* 2.4	* 11.50	* 2.0	* 14.30	* 2.3
Recreation	113.60	17.3	89.30	15.7	105.10	16.8
Personal care	4.80	0.7	7.00	1.2	5.60	0.9
Miscellaneous commodities and services	26.40	4.0	37.40	6.6	30.30	4.8
<b>Total commodity and service expenditure</b>	<b>595.60</b>	<b>90.6</b>	<b>515.70</b>	<b>90.7</b>	<b>567.50</b>	<b>90.6</b>
Mortgage repayments - principal (selected dwelling)	-	-	-	-	-	-
Other capital housing costs	37.10	5.6	** 29.20	** 5.1	* 34.30	* 5.5
Superannuation and life insurance	24.90	3.8	23.40	4.1	24.40	3.9
<b>Total household expenditure</b>	<b>657.60</b>	<b>100.0</b>	<b>568.30</b>	<b>100.0</b>	<b>626.20</b>	<b>100.0</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	925.60		927.90		926.40	
Average number of persons in the household	4.2		3.6		4.0	
Average number of employed persons in the household	1.5		1.5		1.5	
Number of households in sample	59		38		97	
Estimated number of households in population	92		50		142	

# DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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## INTRODUCTION

The following provides a detailed comparison of expenditure patterns between the Christmas and Cocos (Keeling) Islands and Perth. All percentages used relate to average weekly household expenditure for a particular commodity as a proportion of the total household expenditure. As this Survey did not estimate income tax, the percentages for both the Islands and Perth were calculated excluding expenditure on income tax.

The percentages for Perth relate to data collected in the 1993-94 Household Income and Expenditure Survey. The figures have not been updated to correspond with the September 1995 data from the Christmas and Cocos (Keeling) Islands. However, it is expected that the proportion of expenditure on particular commodities and services would not have changed a great deal between 1993-94 and September 1995.

Caution should be exercised when making inferences from these figures. As there was only a relatively small number of households on the Christmas and Cocos (Keeling) Islands that participated in this Survey, the Survey estimates are influenced by large purchases that were reported by some Island residents.

This information should be read in conjunction with the Household Expenditure Survey Commodity Classification List (HESCL), an abridged version of which is available in Appendix A.

## CURRENT HOUSING COSTS (SELECTED DWELLING)

The proportion of total household expenditure attributable to current housing costs (selected dwelling) on Christmas Island was 5.4%. For the Cocos (Keeling) Islands the corresponding proportion was 16.9% and for Perth it was 12.2%.

Rent payments The proportion of total household expenditure on rent payments by Christmas Island households was consistent with the proportion spent by Perth households (3.6% and 4.0% respectively). The proportion of households paying rent was higher on Christmas Island than in Perth (53.9% compared with 29.7%) but the average weekly household expenditure on rent payments on the Island was slightly lower than in Perth (\$25.40 compared with \$28.10). The cost of rent on Christmas Island was just over half that in Perth.

On the Cocos (Keeling) Islands, the proportion of total household expenditure on rent payments was 13.9%. This was much higher than the corresponding proportions for both Christmas Island and Perth. The main reason for this was that the majority of households on the Cocos (Keeling) Islands (88.2%) were renting their dwelling (the remainder were living rent free).

Consequently, households on the Cocos (Keeling) Islands did not make any mortgage payments and did not pay any water and sewerage rates or general council rates. In comparison, the proportion of total household expenditure on rent payments, mortgage payments – interest and principal, water and sewerage rates and general council rates by Christmas Island and Perth households was 5.7% and 14.2% respectively.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Mortgage payments -- interest	<p>As discussed in the previous section, there were no mortgage payments made on the Cocos (Keeling) Islands.</p> <p>The proportion of total household expenditure on mortgage interest payments on Christmas Island (0.6%) was much lower than the proportion spent in Perth (4.7%). One of the contributing factors to this difference was that many of the residents on Christmas Island were living rent free at the time of the Survey (12.5% of households compared with 2.5% in Perth). Some of these Christmas Island households were living in units that were in the process of being strata titled (for further information see Strata titling on page 77).</p> <p>A second reason for the lower expenditure on Christmas Island was that only a small proportion of the population were paying mortgages. There were 156 dwellings (24.9%) on Christmas Island that were owned outright and only 55 (8.8%) were being purchased at the time of the Survey. Furthermore, some households reported having borrowed money from private sources (such as friends or relatives) and did not make any interest payments on these loans.</p>
Rate payments	<p>Since there was a smaller proportion of households on Christmas Island that owned or were purchasing their homes (33.7%) in comparison with Perth (67.8%), the proportion of total household expenditure on rate payments (ie. water and sewerage rates and general council rates) was much lower (0.3%) than in Perth (1.7%). As discussed earlier there were no rate payments incurred by households on the Cocos (Keeling) Islands.</p>
House and contents insurance	<p>The proportion of total household expenditure on house and contents insurance was much lower on both the Christmas and Cocos (Keeling) Islands than in Perth (0.2%, 0.1% and 0.7% respectively). Payments for house and contents insurance on the Islands were influenced by the fact that less people owned (or were purchasing) their own homes in comparison to Perth. In addition, premiums on the Islands were much lower than in Perth due to the lower incidence of theft and fire. Many households on the Islands did not pay for contents insurance because of the rapid depreciation of items due to the climate.</p>
Repairs and maintenance payments	<p>The proportion of total household expenditure on payments to contractors was much lower on the Cocos (Keeling) Islands than in Perth (less than 0.1% and 0.5% respectively). The lower proportion on the Cocos (Keeling) Islands was due to the fact there were no private contracting businesses on the Island. On Christmas Island, the proportion of total household expenditure on Payments to contractors was 0.3%.</p> <p>Households on the Cocos (Keeling) Islands spent 2.9% of their total weekly expenditure on materials for repairs and maintenance. As there were no private contracting businesses on the Island, residents tended to carry out most of the necessary repairs and maintenance themselves.</p> <p>On Christmas Island, the proportion of total household expenditure on materials for repairs and maintenance was slightly higher than in Perth (0.4% and 0.2% respectively). Given that the price of building materials on the Island was about the same as Perth, this would imply that Christmas Island households, on average, bought more building materials than Perth households.</p>

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### FUEL AND POWER

The proportion of total household expenditure on fuel and power in Perth was 2.2%. The corresponding proportion for Christmas Island was 1.8% and for the Cocos (Keeling) Islands it was 4.3%. The per unit price of electricity is the same on the Islands as it is in Perth.

The main reason for the lower proportion on Christmas Island in comparison with Perth was that many households on the Island were entitled to subsidised electricity (for further information see Electricity subsidies on page 71).

There were a number of reasons for the different proportions between the Cocos (Keeling) Islands and Perth. Firstly, the price of bottled gas on the Cocos (Keeling) Islands was four times the price in Perth at the time of the Survey, and secondly, the average household size on the Cocos (Keeling) Islands was larger than in Perth (an average of 4.0 persons compared with 2.6).

### FOOD AND NON-ALCOHOLIC BEVERAGES

Expenditure on food and non-alcoholic beverages accounted for 15.5% of total household expenditure in Perth, 32.2% on Christmas Island and 24.6% on the Cocos (Keeling) Islands. The main reasons for the differences between Perth and the Islands are discussed below.

#### Bakery products, flour and other cereals

The proportion of total household expenditure on bakery products, flour and other cereals was 3.1% on Christmas Island, 3.3% on the Cocos (Keeling) Islands and 1.7% in Perth. The main reasons for this large difference between the Islands and Perth are described below.

- *Bread* – The proportion of total household expenditure on bread was slightly higher on the Cocos (Keeling) Islands than in either Perth or on Christmas Island. Most of the expenditure on bread was on West Island. However, it is difficult to say whether this expenditure is typical of the usual buying patterns on the Island as a new bakery had opened there a fortnight before the Survey period. Bread cost approximately 30% more on Christmas Island and 50% more on the Cocos (Keeling) Islands than in Perth.
- *Cakes, tarts, puddings (fresh or frozen)* – Expenditure on this food group accounted for 0.9% of the total household expenditure on Christmas Island whereas on the Cocos (Keeling) Islands and Perth the corresponding proportions were both around a third of this. The larger proportion on Christmas Island was primarily due to the Chinese 'Moon Festival', which was in progress at the time of the Survey. As part of the festivities, participating households generally buy at least one packet of Moon Cakes, each of which can cost between \$25 and \$30.
- *Pasta (spaghetti, noodles, etc.)* – Expenditure on this food group was higher on the Islands than in Perth (0.2% of total household expenditure on Christmas Island, 0.3% on the Cocos (Keeling) Islands and only 0.1% in Perth). This reflects the variation in diet between residents on the Islands and in Perth. Noodles are a major part of the daily diet of Island residents.
- *Rice* – As rice is a major part of the diet of Island residents, this was reflected in the percentages: 0.6% of total household expenditure on Christmas Island, 1.2% on the Cocos (Keeling) Islands and less than 0.1% in Perth. Island households tended to buy rice in bulk with many households reporting that they bought rice in 10kg and 25kg bags. On Christmas Island, rice cost 30-50% more than in Perth, depending on the quantity being purchased. On the Cocos (Keeling) Islands, rice cost approximately 50% more than in Perth.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Meat and seafood	<p>The proportion of total household expenditure on meat and seafood in Perth was 2.5%, on Christmas Island it was 4.7% and on the Cocos (Keeling) Islands it was 3.3%. The main contributors to the expenditure on Christmas Island were poultry (making up 0.9% of total household expenditure), fresh fish and other fresh seafood (making up 0.8% of total household expenditure) and frozen fish and other frozen seafood (making up 0.7% of total household expenditure).</p> <p>On the Cocos (Keeling) Islands, poultry accounted for 1.3% of total household expenditure. In contrast to Christmas Island where pork was very popular (especially in the Chinese community) the proportion of total household expenditure on pork was much lower on the Cocos (Keeling) Islands than either Christmas Island or Perth. This was due to the fact that the majority of the Malay population on the Cocos (Keeling) Islands do not eat pork for religious reasons.</p> <p>The higher levels of expenditure on meat and seafoods on the Islands were not only due to more meat being purchased, but were also affected by the higher prices for these meats on the Islands. This was particularly the case with poultry, where the price on the Islands was almost double the price in Perth at the time of the Survey.</p>
Dairy products, eggs, edible oils and fats	<p>Expenditure on powdered milk and dairy products and eggs n.e.c. accounted for the majority of the difference in this category between Christmas Island and Perth. Christmas Island residents used more powdered milk because of the difficulties and costs associated with obtaining fresh milk. In addition, more baby formula was purchased on Christmas Island than in Perth. This could partially be due to the larger proportion of children aged under 15 years (and in particular those aged 0 to 4 years). On Christmas Island 10.9% of the population were aged 0 to 4 years compared with 6.9% in Perth. As with other commodities, many of the households reported buying baby formula in bulk.</p> <p>The proportion of total household expenditure on some of the dairy products in this category varied slightly between Christmas Island, the Cocos (Keeling) Islands and Perth. However, given that at the time of the Survey, fresh milk and cream, cheese, butter and margarine all cost more on the Islands than in Perth (up to four times the price), the quantity purchased would have been a lot less on the Islands than in Perth.</p> <p>Expenditure on fresh eggs was much higher on both the Christmas and Cocos (Keeling) Islands than in Perth. The proportion of total household expenditure on both the Christmas and Cocos (Keeling) Islands was 0.4% whereas for Perth it was 0.1%. Not all of this difference can be attributed to the amount of eggs purchased, as the price of fresh eggs on the Islands was double the price in Perth at the time of the Survey.</p> <p>Expenditure on edible oils and fats n.e.c. was much higher on both the Islands than in Perth. On Christmas Island, the proportion of total household expenditure on edible oils and fats n.e.c. was 0.4%, on the Cocos (Keeling) Islands it was 0.5% and in Perth it was less than 0.1%. These percentages not only reflect the difference in price between Perth and the Islands, but also the differences in diet. Of those households that purchased oil during the Survey period, most bought it in bulk, paying between \$20 and \$80 at a time. This was particularly the case on the Cocos (Keeling) Islands, where a third of all households who reported expenditure on edible oil spent \$20 or more during the two-week diary keeping period, with some households spending up to \$100 during this period. The relatively small number of households on the Islands meant that this type of expenditure had a considerable influence on the estimates.</p>

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Fruits, nuts and vegetables The proportion of total household expenditure on fresh fruit in Perth was 0.7%, while on Christmas Island it was 1.6% and on the Cocos (Keeling) Islands it was 2.2%. This difference can mainly be attributed to the difference in the cost of fresh fruit. At the time of the Survey, fresh fruit cost at least twice as much on the Islands as in Perth.

Expenditure on canned, frozen and bottled fruit, and dried fruit and nuts was much higher on the Cocos (Keeling) Islands than either Perth or Christmas Island. The main reason for this higher expenditure can be attributed to the widespread purchase of canned rambutan by Home Island residents.

Fresh vegetables accounted for 0.8% of total household expenditure in Perth, 1.6% on Christmas Island and 2.2% on the Cocos (Keeling) Islands. The main contributors to the difference in expenditure are described below.

- *Fresh potatoes* – The proportion of total household expenditure on fresh potatoes was 0.2% on Christmas Island, 0.3% on the Cocos (Keeling) Islands and 0.2% in Perth. Although these proportions are consistent, the amount of fresh potatoes purchased would have been less on the Islands than in Perth, since the retail price of potatoes was around twice the price on the Islands than in Perth at the time of the Survey. In addition, Island residents purchase less potatoes as they eat more rice as part of their daily diet.
- *Fresh root vegetables n.e.c.* – The majority of these vegetables cost twice the price on the Islands as in Perth.
- *Fresh tomatoes* – There was little difference between the proportion of total household expenditure on fresh tomatoes between the Islands and Perth. Given that at the time of the Survey, tomatoes cost twice as much on Christmas Island and nearly three times as much on the Cocos (Keeling) Islands than in Perth, the amount of fresh tomatoes purchased would have been less on the Islands than in Perth.
- *Fresh vegetables n.e.c.* – The proportion of total weekly household expenditure on fresh vegetables n.e.c. was 0.9% on Christmas Island, 1.1% on the Cocos (Keeling) Islands and 0.3% in Perth. Given the wide variety of vegetables that fall into this category, it is difficult to draw any conclusions about the reasons for the differences in expenditure.
- *Fresh vegetables undefined* – Expenditure in this vegetable group was very small in Perth, but accounted for 0.4% of total household expenditure on the Cocos (Keeling) Islands. Most of this difference was on Home Island where the Malay community eat a variety of vegetables which are not generally purchased by Perth residents.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### Miscellaneous food

The proportion of total household expenditure on the miscellaneous food category was 2.5% in Perth. The corresponding proportion on Christmas Island was 3.4% and on the Cocos (Keeling) Islands it was 4.9%. The main food items which contributed to the difference between the Islands and Perth are described below.

- *Sugar* – The proportion of total household expenditure on sugar on the Cocos (Keeling) Islands was 0.4%, while in Perth and on Christmas Island, the proportion was less than 0.1%. The price of sugar on the Cocos (Keeling) Islands was one and half times the price in Perth, which would imply that there was larger amount of sugar purchased on the Cocos (Keeling) Islands. Home Island residents accounted for the majority of this expenditure.
- *Potato crisps and other savoury confectionery* – The average weekly household expenditure on potato crisps and other savoury confectionery on the Islands was twice that in Perth. Most of this difference can be attributed to the large amount of potato crisps purchased by Island residents. The average price of potato chips was similar between the Islands and Perth.
- *Ice and other confectionery* – Expenditure on this group was larger on the Cocos (Keeling) Islands than either on Christmas Island or in Perth (accounting for 0.8% of total household expenditure, 0.5% and 0.5% respectively).
- *Proprietary food drinks n.e.c.* – Expenditure for this food group was much larger on Christmas Island (accounting for 0.2% of total household expenditure) than either in Perth or on the Cocos (Keeling) Islands, where the proportion for both was less than 0.1%. Most of this difference can be attributed to the large amount of chocolate malted drink mix purchased by the residents on Christmas Island.
- *Food undefined* – The proportion of total household expenditure on food undefined was much higher on both of the Islands than in Perth. In Perth this group accounted for 0.4% of total household expenditure, while on Christmas Island the proportion was 0.7% and on the Cocos (Keeling) Islands it was 1.7%. The main reason for this difference was that when householders were completing their diaries, they reported the total amount that they paid for groceries without itemising the individual purchases. As a result, this expenditure had to be classified to the food undefined category. There were also a number of residents who made large payments on grocery accounts, which had an influence on the estimates.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Non-alcoholic beverages	<p>The proportion of total household expenditure on non-alcoholic beverages was 2.1% on Christmas Island, 3.8% on the Cocos (Keeling) Islands and 1.2% in Perth. The main reasons for this difference between the Islands and Perth are described below.</p> <ul style="list-style-type: none"><li>▪ <i>Soft drinks and aerated waters</i> – In Perth, the proportion of total household expenditure on soft drinks and aerated waters was 0.7%, while on Christmas Island the proportion was 1.3% and on the Cocos (Keeling) Islands it was 2.4%. On Christmas Island this difference would be entirely due to the quantity of soft drinks purchased by the residents. On the Cocos (Keeling) Islands, some of the difference may be due to the higher price of some soft drinks (such as 24 can packs) in comparison with Perth. However, other soft drinks (such as individual cans and bottles) were much the same price as in Perth. The larger proportion of children on the Islands did not appear to be an influencing factor as households containing only adults also reported larger expenditure on soft drinks.</li><li>▪ <i>Fruit juice</i> – Fruit juice accounted for 0.5% of total household expenditure on Christmas Island, 0.9% on the Cocos (Keeling) Islands and only 0.2% in Perth. The price of fruit juice on Christmas Island was much the same as in Perth, while the price on the Cocos (Keeling) Islands was nearly twice that in Perth. Nevertheless, there still appeared to be a larger amount of fruit juices purchased on the Islands than in Perth. Part of this could be attributed to the larger amount of fruit juice purchased by households with children.</li><li>▪ <i>Cordials</i> – On the Cocos (Keeling) Islands the proportion of total household expenditure on cordials was 0.3%, while in Perth and on Christmas Island, the expenditure was less than 0.1%. The price of cordial on the Cocos (Keeling) Islands was twice that in Perth. While part of the difference in expenditure could be attributed to the price, it was mainly due to the higher amount of cordials purchased.</li><li>▪ <i>Milk based beverages, not packaged/boxed, n.e.c.</i> – The proportion of total household expenditure for this category on Christmas Island was 0.2% while in Perth and on the Cocos (Keeling) Islands, there was almost no expenditure. The main reason for this larger expenditure was the higher amount of milkshakes and chocolate milk drinks purchased by residents on Christmas Island.</li></ul>
Meals out and take-away food	<p>The proportion of total household expenditure on meals out and take-away food was 12.8% on Christmas Island, 1.7% on the Cocos (Keeling) Islands and 4.2% in Perth.</p> <p>Most of the difference between Christmas Island and Perth can be attributed to meals in restaurants, hotels, clubs, etc. The reason for this is mainly due to an apparent lifestyle difference. Many Christmas Island residents reported eating out for breakfast and lunch most days of the week, and dinner on a regular basis. Meals in restaurants, hotels, clubs etc. were much the same price or cheaper than in Perth.</p> <p>Expenditure on meals in restaurants, hotels, clubs, etc. was lower on the Cocos (Keeling) Islands than in Perth. Most of this difference can be attributed to the low expenditure on Home Island.</p> <p>Expenditure on snacks, take-away foods (not frozen) was similar between Christmas Island and Perth (1.7% and 1.9% respectively), but lower on the Cocos (Keeling) Islands (0.5%). This was also due to low expenditure on Home Island.</p>

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### ALCOHOLIC BEVERAGES

Alcoholic beverages accounted for 2.6% of total household expenditure in Perth, 4.3% on Christmas Island and 1.7% on the Cocos (Keeling) Islands. It should be noted that, on the Islands, alcoholic beverages are duty free and sales tax exempt.

The main differences between Christmas Island and Perth are described below.

- *Spirits (for consumption both on and off licensed premises)* – Expenditure on this commodity accounted for 1.3% of total household expenditure on Christmas Island and 0.5% in Perth. As the cost of spirits on the Island was only half that in Perth (due to the duty free status of alcohol), this would imply a greater amount of spirits being purchased on Christmas Island.
- *Alcoholic beverages undefined* – Expenditure on these alcoholic beverages accounted for 0.7% of total household expenditure on Christmas Island and 0.1% in Perth. The reason that expenditure in this category was larger on Christmas Island was because residents did not always describe the types of drinks they purchased. Instead, they reported a total amount for all alcoholic drinks purchased on a particular day.

The main reason for the lower proportion of total household expenditure on alcoholic beverages on the Cocos (Keeling) Islands was that there was no expenditure reported by Home Island residents. This was mainly due to the religious beliefs of Home Island residents.

### TOBACCO

Expenditure on tobacco corresponded to 1.6% of total household expenditure in Perth, 1.2% on Christmas Island and 0.4% on the Cocos (Keeling) Islands. Although the proportion of total household expenditure on Christmas Island was comparable to Perth, these products only cost half as much on the Island as in Perth, due to their duty free status. The amount of tobacco purchased was consequently greater on Christmas Island. On the Cocos (Keeling) Islands, the lower proportion could have been due the duty free status of tobacco, as well as the fact that residents reported purchasing less tobacco.

### CLOTHING AND FOOTWEAR

Expenditure on clothing and footwear accounted for 4.4% of total household expenditure in Perth, 2.5% on Christmas Island and 2.2% on the Cocos (Keeling) Islands.

The climate and lifestyle on the Islands affects the type of clothing bought by residents. There was no reported expenditure on clothing such as suits and coats and there were no dry cleaning facilities available on the Islands. Anecdotal evidence suggests that many of the residents buy clothing when they are on holidays in Perth, Malaysia or Indonesia. Very little expenditure on either clothing or footwear was reported at the time of the Survey.

#### Men's clothing

The proportion of total household expenditure on men's clothing on both Christmas Island and the Cocos (Keeling) Islands was less than half that reported in Perth.

On Christmas Island, there was no expenditure reported on suits, coats or sleepwear and minimal expenditure reported on the other items that make up this category. On the Cocos (Keeling) Islands, there was minimal expenditure reported on trousers (excluding jeans), shirts and men's clothing n.e.c. and no expenditure reported on the other items that make up this category.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Women's clothing	<p>Women's clothing accounted for 1.5% of total household expenditure in Perth, 0.6% on Christmas Island and 0.6% on the Cocos (Keeling) Islands.</p> <p>The majority of expenditure reported on the Cocos (Keeling) Islands was on trousers (excluding jeans), skirts, dresses and suits, but there was no reported expenditure on jeans, coats, cardigans, jumpers, pullovers, sweaters, twinsets etc., foundation garments, sleepwear or women's clothing undefined.</p> <p>The difference in expenditure between Christmas Island and Perth can be attributed to less expenditure on trousers (excluding jeans), skirts, dresses and suits, and women's other clothing. There was no reported expenditure on coats and a negligible amount reported on cardigans, jumpers, pullovers, sweaters, twinsets, etc.</p>
Children's and infants' clothing	<p>Expenditure on children's and infants' clothing accounted for 0.5% of total household expenditure in Perth, 0.2% on Christmas Island and 0.3% on the Cocos (Keeling) Islands. There was very little difference in the reported expenditure on the various clothing items which make up this group.</p>
Headwear, hosiery, clothing accessories and clothing materials	<p>Expenditure on this clothing group was much the same on the Islands as in Perth. The expenditure corresponded to 0.9% of total household expenditure in Perth, 0.8% on Christmas Island and 1.0% on the Cocos (Keeling) Islands.</p> <p>On the Cocos (Keeling) Islands, the expenditure patterns within the group were quite different from that in Perth. Anecdotal evidence has shown that many of the women on the Cocos (Keeling) Islands tend to purchase material for making their own clothing. Hence, there was more expenditure on clothing materials and haberdashery than in Perth. However, there was less expenditure on men's hosiery, women's hosiery and no expenditure on children's and infants' hosiery reported on the Cocos (Keeling) Islands.</p>
Footwear	<p>The proportion of total household expenditure on footwear was 0.7% in Perth, 0.4% on Christmas Island and 0.1% on the Cocos (Keeling) Islands. Expenditure on most of the footwear items that make up this group was much lower on both Islands in comparison with Perth. There was no reported expenditure on women's footwear, children's footwear or infants' footwear on the Cocos (Keeling) Islands.</p>
Clothing and footwear services	<p>The proportion of total household expenditure for this group was 0.2% in Perth. On Christmas Island, there was negligible expenditure and on the Cocos (Keeling) Islands there was no expenditure reported in this group.</p>

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### HOUSEHOLD FURNISHINGS AND EQUIPMENT

#### Furniture and floor coverings

The proportion of total household expenditure on household furnishings and equipment was 6.5% in Perth, 4.2% on Christmas Island and 6.6% on the Cocos (Keeling) Islands.

In Perth, the proportion of total household expenditure on furniture and floor coverings was 2.5%. On Christmas Island, the corresponding proportion was 1.2% and on the Cocos (Keeling) Islands it was 2.3%.

Given that the cost of furniture on Christmas Island was one and a half times that in Perth, the difference in expenditure between Perth and Christmas Island was mainly due to the fact that residents on the Island purchased much less furniture and floor coverings.

On Christmas Island, 33% of the expenditure on furniture and floor coverings was on items purchased directly from an on-Island store or agency, 31% was on items purchased off-Island (either through a personal visit or some other direct contact such as mail order or through a catalogue) and 26% of expenditure was on items ordered through an on-Island store or agency.

On the Cocos (Keeling) Islands, 51% of expenditure was on purchases that were made through a personal visit or some other direct contact with an off-Island store. A further 20% of the total expenditure on furniture and floor coverings was on items that were ordered through an on-Island store or agency and 13% was on items bought directly from an on-Island store or agency.

#### Blankets, travelling rugs, household linen and household furnishings

Expenditure for this commodity group accounted for 1.5% of total household expenditure in Perth, 0.3% on Christmas Island and 0.8% on the Cocos (Keeling) Islands.

The reason that the proportion was lower on Christmas Island than in Perth can be attributed to no reported expenditure on blankets and travelling rugs, blinds, paintings, carvings and sculptures on the Island.

On the Cocos (Keeling) Islands there was no reported expenditure on blankets and travelling rugs, blinds or curtains.

#### Household appliances

Expenditure on household appliances accounted for a higher proportion of total household expenditure on the Cocos (Keeling) Islands (2.6%) than both Christmas Island (1.5%) and Perth (1.7%). Residents on the Cocos (Keeling) Islands spent more on refrigerators and freezers, and washing machines than both Christmas Island and Perth residents. However, there was no reported expenditure on dishwashers or clothes dryers on the Cocos (Keeling) Islands.

On the Cocos (Keeling) Islands, 57% of the total expenditure on household appliances was on items that were ordered through an on-Island store or agency. A further 18% was on items that were bought directly from an on-Island store or agency and 12% was on items that were bought either through a personal visit to an off-Island store or through some other form of direct contact with an off-Island store (such as mail order or through a catalogue).

On Christmas Island, 67% of the total expenditure on household appliances was on purchases that were made through an on-Island store or agency. A further 11% of total expenditure was on purchases that were ordered through an on-Island store or agency.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Glassware, tableware and household utensils	Expenditure on glassware, tableware and household utensils was much the same on the Islands as in Perth (expenditure on this group accounted for 0.5% of total household expenditure on Christmas Island, 0.7% on the Cocos (Keeling) Islands and 0.4% in Perth). On the Cocos (Keeling) Islands, however, the distribution of expenditure was quite different. Residents of the Cocos (Keeling) Islands spent less on tableware (eg. crockery) and cutlery and more on kitchen utensils n.e.c. Expenditure on kitchen utensils n.e.c. was affected by a number of households which reported buying goods worth \$100 or more.
Tools, other household durables undefined	In Perth, the proportion of total household expenditure for this group was 0.6%. On Christmas Island the expenditure was 0.7% and on the Cocos (Keeling) Islands it was 0.1%. The reason for the lower proportion on the Cocos (Keeling) Islands was that there was minimal expenditure reported on gardening tools and household durables n.e.c. and undefined.

### HOUSEHOLD SERVICES AND OPERATION

The proportion of total household expenditure on household services and operation was 4.3% in Perth, 4.8% on Christmas Island and 6.3% on the Cocos (Keeling) Islands.

Although the percentages for Perth and Christmas Island were similar, the actual distribution of expenditure within this group was quite different. The main differences are described below.

- *Household soaps and detergents* – Expenditure on this group accounted for 0.6% of total household expenditure on Christmas Island, but only 0.2% in Perth. Two main factors contributed to this difference. Firstly, the price of household soaps and detergents was higher on Christmas Island than in Perth at the time of the Survey. Secondly, many Christmas Island residents reported buying large amounts of household soap and detergents. As a shipment arrived on Christmas Island during the Survey period, residents may have been stocking up while the goods were available.
- *Paper products (tissue paper, serviettes, toilet paper)* – On Christmas Island, expenditure on paper products (tissue paper, serviettes, toilet paper) was twice that in Perth (accounting for 0.8% of total household expenditure on Christmas Island and 0.4% in Perth). The main contributor to this large expenditure was the bulk purchase of disposable nappies by the residents during the Survey period.
- *Trees, shrubs and plants, Gardening products n.e.c. and Gardening and private rubbish removal services* – Island residents spent less on this group than Perth residents. Expenditure on these goods accounted for less than 0.1% of total household expenditure on Christmas Island and 0.6% in Perth.
- *Child care services n.e.c.* – Expenditure on this group accounted for 0.7% of total household expenditure on Christmas Island, while in Perth the expenditure was less than 0.1%.

## **DETAILED COMPARISONS OF EXPENDITURE PATTERNS**

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The difference between the Cocos (Keeling) Islands and Perth can be attributed to the greater amount spent on household soaps and detergents, and telephone and telegram charges on the Islands. Household soaps and detergents accounted for 0.7% of total household expenditure on the Cocos (Keeling) Islands but only 0.2% in Perth. Telephone and telegram charges accounted for 4.2% of total household expenditure on the Islands but only 1.7% in Perth.

On the Cocos (Keeling) Islands, there was no expenditure reported on household polishes, swimming pool chemicals, household non-durables undefined, pest control services, gardening and private rubbish removal services, housekeeping and cleaning services (including ironing), household services n.e.c., child care services – institution (including pre year 1 education), child care services undefined, carpet cleaning, repair and maintenance of soft furnishings, repair and maintenance of household durables n.e.c. and undefined, or household appliance repairs insurance. Also, there was minimal expenditure on nails, screws and other fasteners, trees, shrubs and plants, gardening products n.e.c., repair and maintenance of tools, and hire of household durables n.e.c.

### **MEDICAL CARE AND HEALTH EXPENSES**

The proportion of total household expenditure on medical care and health expenses was 3.8% in Perth, 2.7% on Christmas Island and 2.8% on the Cocos (Keeling) Islands.

The proportion of total household expenditure on accident and health insurance was lower on the Islands than in Perth (0.8% on Christmas Island, 1.1% on the Cocos (Keeling) Islands and 1.7% in Perth). This was largely due to lower expenditure on hospital, medical and dental insurance on the Islands.

Expenditure on general practitioners doctor's fees was fairly consistent between the Islands and Perth. Expenditure on medicines, pharmaceutical products, therapeutic appliances and equipment on the Cocos (Keeling) Islands was about half that on either Christmas Island or in Perth.

### **TRANSPORT**

The proportion of total household expenditure on transport was 13.6% in Perth, 8.1% on Christmas Island and 2.3% on the Cocos (Keeling) Islands. These percentages only include private transport costs as there were no public transport costs on the Islands. The reasons for the difference between Perth and the Islands are given below.

#### **Motor vehicle purchase**

Expenditure on purchases of motor vehicles accounted for 3.8% of total household expenditure in Perth, 0.8% on Christmas Island and -1.9% on the Cocos (Keeling) Islands. The negative percentage on the Cocos (Keeling) Islands was due to the fact that the value of vehicles sold by Cocos (Keeling) Islands residents in the last 12 months was greater than the value of vehicles bought by the residents. Sales and purchases include all vehicles regardless of whether they were bought or sold on or off the Islands.

Island residents reported buying vehicles second hand from other residents or from auction when government vehicles were sold off. Very few new vehicles were purchased by the residents in the 12 months prior to September 1995.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

Motor vehicle fuel, lubricants and additives	<p>Expenditure for this group accounted for 2.2% of total household expenditure on Christmas Island and 3.9% of total household expenditure in Perth. The difference between Christmas Island and Perth was mainly due to the amount of expenditure reported on petrol. On Christmas Island, 85% of households reported having paid registration for at least one vehicle. In Perth, 89.7% of households reported having at least one vehicle at the time of the 1991 Population Census. Even though vehicle ownership was high on Christmas Island, residents spent much less on petrol than Perth residents. This seems reasonable given that the distances travelled by the Islanders would be considerably less than in Perth. The price difference between Christmas Island and Perth would also have had an effect on the expenditure as the prices of petrol and diesel fuel were slightly cheaper on the Island.</p>
	<p>On the Cocos (Keeling) Islands the proportion of total household expenditure on this group was also lower than in Perth (2.0% and 3.9% respectively). As with Christmas Island, this difference was mainly due to lower expenditure on petrol, which seems reasonable given the shorter distances travelled by Island residents in comparison with Perth residents. Unlike Christmas Island, vehicle ownership on the Cocos (Keeling) Islands was quite low (only 31% of households reported having paid registration for at least one vehicle) which would account for the lower expenditure on petrol. The expenditure would also have been affected by the price of petrol. At the time of the Survey, the price of petrol on the Islands was over one and a half times higher than in Perth. However, diesel fuel was much cheaper than in Perth.</p>
Vehicle registration and insurance	<p>Vehicle registration and insurance costs accounted for 2.0% of total household expenditure in Perth, 1.0% of total household expenditure on Christmas Island and 0.4% on the Cocos (Keeling) Islands. Households on the Islands spent less on other insurance of motor vehicle (other than motor cycles) than Perth households. This included comprehensive motor vehicle insurance and third party property insurance on motor vehicles. In addition, households on the Cocos (Keeling) Islands spent less on compulsory registration and insurance of a motor vehicle (other than motor cycle) than Perth households. Vehicle registration and insurance costs on the Islands were only half that in Perth.</p>
Other running expenses of vehicles	<p>Other running expenses of vehicles accounted for 3.1% of total household expenditure in Perth, 3.7% on Christmas Island and 1.2% on the Cocos (Keeling) Islands. The lower proportion on the Cocos (Keeling) Islands was due to no reported expenditure on motor vehicle electrical accessories (purchased separately), vehicle accessories n.e.c. (purchased separately), driving lessons, subscriptions to motor organisations, vehicle hire and leasing expenses (non-holiday), and vehicle charges including hire of accessories n.e.c. There was also less expenditure on vehicle servicing (including parts and labour) (0.6% of total household expenditure on the Cocos (Keeling) Islands compared with 1.7% in Perth).</p>
Public transport fares	<p>There was no expenditure reported on public transport fares on either the Christmas or Cocos (Keeling) Islands. On Christmas Island, there is no public transport available, and on the Cocos (Keeling) Islands, the only form of public transport is a free ferry service that runs from Home Island to West Island. Expenditure on public transport fares accounted for 0.3% of total household expenditure in Perth.</p>
Other fare and freight charges	<p>The proportion of total household expenditure on other fare and freight charges was 0.3% in Perth, 0.5% on Christmas Island and 0.2% on the Cocos (Keeling) Islands. Most of the expenditure in Perth was on taxi fares (0.2%), whereas there was no expenditure reported on taxi fares on either the Christmas or Cocos (Keeling) Islands. The reason for this is that there are no taxis operating on either of the Islands.</p>

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### RECREATION

Television and other audio-visual equipment

The proportion of total household expenditure on recreation was 10.7% in Perth, 13.9% on Christmas Island and 16.8% on the Cocos (Keeling) Islands.

The proportion of total household expenditure on television and other audio-visual equipment by Christmas Island residents was 2.8% compared with 1.8% in Perth. This larger proportion would be due to the fact that residents on the Christmas Islands purchased more televisions and other audio-visual equipment than Perth residents. As Christmas Island residents do not pay sales tax on these goods, the prices were cheaper on Christmas Island than in Perth.

Of the total expenditure on television and other audio-visual equipment on Christmas Island, 55% was on items that were either bought directly from or were ordered through an on-Island store or agency. Many of the residents reported buying second hand goods in this category, or buying the goods off-Island. Approximately 35% of the expenditure on television and other audio-visual equipment was on items that were purchased from an off-Island store, either through a personal visit or by some other direct contact with the store (such as through mail order).

The main items contributing to the difference between Christmas Island and Perth were: televisions (accounting for 0.7% of total household expenditure on Christmas Island and 0.5% in Perth), radio/stereo/hi-fi equipment (accounting for 0.8% of total household expenditure on Christmas Island and 0.4% in Perth) and compact discs and records (audio) (accounting for 0.5% of total household expenditure on Christmas Island and 0.2% in Perth).

Expenditure on television and other audio-visual equipment accounted for 3.5% of total household expenditure on the Cocos (Keeling) Islands compared with 1.8% in Perth. As with Christmas Island this larger expenditure was due to the fact that the residents on the Cocos (Keeling) Islands bought more of this type of equipment than Perth residents. These goods were much cheaper on the Islands than in Perth. More than half (56%) of the expenditure on television and other audio-visual equipment was on equipment that was purchased either directly from or ordered through an on-Island store or agency, and 33% of the expenditure was on items that were bought off-Island.

Books, newspapers, magazines and other printed material

The proportion of total household expenditure on books, newspapers, magazines and other printed material was lower on both the Christmas and Cocos (Keeling) Islands than in Perth (0.4%, 0.2% and 0.9% respectively). This was mainly due to lower expenditure on books and newspapers (excluding specialist newspaper type magazines) on the Islands.

Other recreational equipment

Expenditure on other recreational equipment accounted for 5.0% of total household expenditure on the Cocos (Keeling) Islands compared with 1.4% in Perth. This was mainly due to large expenditure on boat parts and accessories on the Cocos (Keeling) Islands (accounting for 3.0% of total household expenditure), most of which was on Home Island.

Gambling

Expenditure on gambling accounted for 1.5% of total household expenditure on Christmas Island compared with 0.6% in Perth. Residents on the Island reported more expenditure on lottery tickets, TAB, on course betting etc., and blackjack, roulette and other casino type games than Perth residents.

Gambling expenditure accounted for under 0.1% of total household expenditure on the Cocos (Keeling) Islands compared with 0.6% in Perth. There was no expenditure on gambling on Home Island, and only a minimal amount on West Island.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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Entertainment and recreational services	The proportion of total household expenditure on entertainment and recreational services was 2.0% in Perth, 2.2% on Christmas Island and 0.8% on the Cocos (Keeling) Islands. There was either no expenditure or minimal expenditure reported for the majority of the commodities that make up this group on both the Christmas and Cocos (Keeling) Islands. This would explain the low proportion on the Cocos (Keeling) Islands. On Christmas Island, the minimal expenditure in most commodities was compensated for by the larger expenditure on the hire of video cassette tapes and TV games (accounting for 0.9% of total household expenditure on Christmas Island compared with only 0.2% in Perth).
Holidays – Australia (selected expenses)	The proportion of total household expenditure on holidays within Australia was lower in Perth (1.6%) than on Christmas Island (2.4%). Almost all of the expenditure on Christmas Island was on airfares (accounting for 2.1% of total household expenditure). The corresponding proportion for Perth was 0.5%. Domestic airfares were slightly more expensive for Christmas Island residents than Perth residents.
Holidays – overseas (selected expenses)	On the Cocos (Keeling) Islands, the proportion of total household expenditure on holidays within Australia was 6.2% compared with 1.6% in Perth. Again, the majority of the expenditure on the Cocos (Keeling) Islands was on airfares (accounting for 5.9% of total household expenditure compared). This compared with 0.5% in Perth. As with Christmas Island, domestic airfares were more expensive for Cocos (Keeling) Island residents than Perth residents.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### PERSONAL CARE

Expenditure on personal care accounted for 1.7% of total household expenditure in Perth, 1.5% on Christmas Island and 0.9% on the Cocos (Keeling) Islands. The main reason for the difference between Perth and the Cocos (Keeling) Islands was due to the fact that there was very little expenditure reported on hair dressing and beauty services on the Islands.

### MISCELLANEOUS COMMODITIES AND SERVICES

The proportion of total household expenditure on miscellaneous commodities and services was 6.4% in Perth, 8.0% on Christmas Island and 4.8% on the Cocos (Keeling) Islands.

The reason for lower expenditure on miscellaneous commodities and services on the Cocos (Keeling) Islands compared with Perth was mainly due to no reported expenditure on watches and clocks, interest payments on fixed term loans and mortgages for other properties, interest payments on credit card cash advances, primary school fees (independent), private education tuition fees, government duties and charges separately identified, financial institution charges n.e.c., alimony or maintenance payments, legal fees, fees n.e.c., fines, personal advertising etc., non-holiday accommodation, and repairs of miscellaneous goods.

The reason for the higher expenditure on miscellaneous commodities and services on Christmas Island compared with Perth was mainly due to a higher proportion of expenditure on cash gifts and donations to charity (accounting for 2.4% of total household expenditure on Christmas Island and 0.6% in Perth).

Interest payments on selected credit services (excluding mortgage payments for selected dwellings)

Interest payments on selected credit services (excluding mortgage payments for selected dwelling) accounted for 0.7% of total household expenditure on Christmas Island, 0.7% on the Cocos (Keeling) Islands and 1.3% in Perth. The residents on Christmas Island spent less on interest payments on fixed term loans and mortgages for other properties (0.2% of their total household expenditure compared with 1.1% in Perth) but spent more on interest payments on credit card purchases (goods and services) and interest payments on credit card cash advances.

On the Cocos (Keeling) Islands, there was no reported expenditure on interest payments for fixed term loans and mortgages for other properties, and no reported expenditure on interest payments for credit card cash advances.

Miscellaneous services

Expenditure on miscellaneous services accounted for 2.5% of total household expenditure in Perth, 4.6% on Christmas Island and 1.3% on the Cocos (Keeling) Islands. Cash gifts, donations to charity accounted for 2.4% of total household expenditure on Christmas Island compared with only 0.6% in Perth. Many of the Christmas Island residents reported sending large amounts of money to family members in Perth and/or other countries. One third of the cash gifts sent to family members were for \$200 or more.

Expenditure on pocket money or allowance accounted for 0.6% of total household expenditure on Christmas Island compared with 0.2% in Perth. Many households reported paying between \$2 and \$16 per day, nearly every day, during the diary keeping period in Pocket Money and Allowances. This higher expenditure could be due to the higher proportion of children aged 0 to 15 years on the Island. However, some of the payments were reported to have been made to adult family members.

## DETAILED COMPARISONS OF EXPENDITURE PATTERNS

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### MORTGAGE REPAYMENTS – PRINCIPAL (SELECTED DWELLING)

The proportion of total household expenditure on mortgage repayments – principal (selected dwelling) was lower on Christmas Island (1.2%) than in Perth (3.7%). On the Cocos (Keeling) Islands there were no mortgage repayments paid. As discussed earlier, all households on the Cocos (Keeling) Islands were either renting their dwelling or living rent free.

As discussed earlier, only a small proportion of the households on Christmas Island actually had mortgages and therefore, as with interest payments, the proportion of total household expenditure on Mortgage Repayments – Principal (Selected Dwelling) was less than in Perth.

### OTHER CAPITAL HOUSING COSTS

The proportion of total household expenditure on other capital housing costs was 7.3% in Perth, 4.5% on Christmas Island and 5.5% on the Cocos (Keeling) Islands.

On Christmas Island there was less expenditure reported on additions/extensions (1.1% of total household expenditure compared with 2.7% in Perth), outside building (0.4% of total household expenditure compared with 0.7% in Perth) and outside improvements n.e.c. (0.2% of total household expenditure compared with 0.4% in Perth). There was no expenditure reported on insulation or inground swimming pools on Christmas Island.

On the Cocos (Keeling) Islands, expenditure on additions/extensions was greater than in Perth (accounting for 3.6% and 2.7% of total household expenditure and respectively). Anecdotal evidence has shown that even though the majority of the residents on the Cocos (Keeling) Islands were renting their dwelling at the time of the Survey, they consider themselves to be long term residents and consequently, they tend to undertake various alterations and additions to their dwelling. As with Christmas Island, there was no reported expenditure on insulation or inground swimming pools on the Cocos (Keeling) Islands.

### SUPERANNUATION AND LIFE INSURANCE

Expenditure on superannuation and life insurance accounted for 2.6% of total household expenditure in Perth, 3.8% on Christmas Island and 3.9% on the Cocos (Keeling) Islands. There was very little difference in the amount spent on life insurance between Perth and the Islands. The proportion of total household expenditure on superannuation and annuities, however, was 3.0% on Christmas Island and 3.1% on the Cocos (Keeling) Islands, but only 2.2% in Perth.

## S U B S I D I E S

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### INTRODUCTION

As a supplement to the detailed information about income and expenditure patterns of Christmas and Cocos (Keeling) Island residents, the Spending and Income Survey (SIS) also collected information about government and employer subsidies and allowances. The information collected relates to subsidies that householders received, *as a result of living on the Islands*, in the 12 month period prior to the Survey. Unfortunately, collection of detailed, reliable information proved difficult due to the varying ways in which residents are paid subsidies, the diverse nature of the subsidies themselves, and recall or knowledge problems regarding the value of the subsidies received.

The figures presented relate purely to subsidies that residents reported receiving in the 12 months ending September 1995. Due to the questionable accuracy of the data, estimates for the entire Island populations have NOT been calculated. For this reason the results should be used with great care, as indicative data only.

Of the 350 fully responding households in the Survey, 253 households were located on Christmas Island and 97 were on the Cocos (Keeling) Islands. These 350 households comprised of 719 persons aged 15 years or over, 464 of whom resided on Christmas Island and 255 of whom resided on the Cocos (Keeling) Islands.

On Christmas Island, 305 persons from 214 households reported receiving at least one subsidy. Thus, while only 66% of all Christmas Island respondents reported receiving a subsidy, the proportion of households affected was almost 85%. The value of subsidies or allowances that were reported as being received during the 12 month period ending September 1995 was \$1,725,600.

On the Cocos (Keeling) Islands, 105 persons from 87 households reported receiving at least one subsidy. While this corresponds to only 41% of all respondents on the Cocos (Keeling) Islands, the proportion of households that received at least one subsidy was 90%. The value of subsidies or allowances that were reported as being received during the 12 month period ending September 1995 was \$639,600.

The value of subsidies do not include the 146 reports of subsidies where the value could not be recalled by the respondent or could not be determined through imputation. These 146 reports affected 114 households on both the Christmas and Cocos (Keeling) Islands.

The main subsidies reported were District Allowances, free or subsidised air fares and Rent Allowances. Other subsidies reported include meal allowances, electricity subsidies, Vehicle Allowance, Medivac, Furniture Removal and Storage Allowance, Excess Baggage, Disturbance Allowance, Telephone Allowance, Loss on Sale and Exempt Sales Duty. The following provides information on the major subsidies reported on each of the Islands.

## S U B S I D I E S

### CHRISTMAS ISLAND

District Allowances Various government and non-government organisations paid their employees a District Allowance to compensate them for the extra costs involved with living on the Island. In general, employees with dependents were paid a higher District Allowance than those without dependents, however, the actual rates paid varied depending on the employer. Christmas Island residents who were receiving a Social Security pension (such as Jobsearch Allowance) were also entitled to a Remote Area Allowance. As Remote Area Allowances were also paid to compensate recipients for the extra costs incurred as a result of living on the Island, these two allowances have been combined.

On Christmas Island, \$730,400 worth of District Allowances were reported as being received by 230 persons from 176 households. This corresponds with 50% of surveyed residents and 70% of surveyed households. Table 25 shows the number of persons who reported receiving a District Allowance by the reported annual value of the allowance.

### 25 DISTRICT ALLOWANCES

<i>Reported annual value</i>	No.	%
Less than \$1,000	16	7
\$1,000 to less than \$2,000	25	11
\$2,000 to less than \$3,000	69	30
\$3,000 to less than \$4,000	54	24
\$4,000 to less than \$5,000	39	17
\$5,000 to less than \$6,000	19	8
\$6,000 or more	5	2
Amount not known	3	1
<b>Total</b>	<b>230</b>	<b>100</b>

### Free or subsidised air fares

Free or subsidised air fares were provided by some employers to those employees that had moved to Christmas Island to work. Entitlements to these air fares were dependent on the employer. Some employers paid for the employees' initial flight to the Island, while others only refunded the cost of the air travel after certain conditions of service had been met (such as after working with the organisation for a fixed period of time). Some employees were also entitled to a free flight home once a year.

On Christmas Island, \$327,900 worth of free or subsidised air fares were reported by 182 persons from 139 households. This corresponds with 39% of surveyed residents and 55% of surveyed households. Table 26 shows the number of persons who reported receiving a free or subsidised air fare by the reported annual value of this subsidy.

### 26 FREE OR SUBSIDISED AIR FARES

<i>Reported annual value</i>	No.	%
Less than \$1,000	24	13
\$1,000 to less than \$2,000	96	53
\$2,000 to less than \$3,000	33	18
\$3,000 to less than \$4,000	14	8
\$4,000 or more	15	8
<b>Total</b>	<b>182</b>	<b>100</b>

## S U B S I D I E S

### Rent Allowances

On Christmas Island, \$343,600 worth of Rent Allowances were reported by 136 persons from 116 households. This corresponds with 29% of surveyed residents and 46% of surveyed households reporting that they received a Rent Allowance. Table 27 shows the number of persons who reported receiving a Rent Allowance by the reported annual value of the allowance.

Of the 136 persons who reported receiving a Rent Allowance in the 12 months prior to September 1995, there were 35 reports where the value of the subsidy was not known. This corresponds to 26% of all reports. The main reason for this high proportion was that, often, the employees' accommodation was provided directly by their employer. Employees generally paid a reduced rent without being aware of the full value of the rent or the amount that was being subsidised.

In some cases, rent payments also included the cost of other household expenses such as water consumption charges, electricity and general council rates. Employers generally paid Rent Allowances only to those employees who had moved to Christmas Island to work. Often, there were other conditions of service that had to be met before the employee was entitled to a subsidised rent. In some cases, the rent payment was further reduced after a certain number of months of continuous service.

Social Security recipients were also entitled to a Rent Allowance (known as Rental Assistance). The value of the allowance was dependent on the number of children in the household and the household income. Furthermore, recipients of Rental Assistance were required to be living in non-government accommodation.

### 27 RENT ALLOWANCES

Reported annual value	No.	%
Less than \$2,000	17	12
\$2,000 to less than \$4,000	59	43
\$4,000 to less than \$6,000	13	10
\$6,000 or more	12	9
Amount not known	35	26
<b>Total</b>	<b>136</b>	<b>100</b>

### Meal allowances

On Christmas Island, \$105,200 worth of meals allowances were reported as being received by 85 persons from 61 households. This corresponds with 18% of surveyed residents and 24% of surveyed households. Table 28 shows the number of persons who reported receiving a meal allowance by the reported annual value of the allowance. Many residents did not know the value of this allowance, so where possible, the value was estimated by the ABS.

### 28 MEAL ALLOWANCES

Reported annual value	No.	%
Less than \$1,000	24	28
\$1,000 to less than \$2,000	36	42
\$2,000 or more	16	19
Amount not known	9	11
<b>Total</b>	<b>85</b>	<b>100</b>

## S U B S I D I E S

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Electricity subsidies On Christmas Island, \$18,700 worth of free or subsidised electricity was reported by 77 persons from 61 households. This corresponds with 17% of surveyed residents and 24% of surveyed households, however, the value could not be determined for over half (57%) of the reports. The main reason for this was that recipients often did not receive a full electricity account. Instead, the provider of the subsidy received the accounts and then sent the recipient a bill for the portion that they were required to pay. In some cases, the cost of electricity was directly included in the cost of the rent.

The amount of the electricity bill that was subsidised depended on the provider. This ranged from the total cost of the electricity bill to a portion of the cost, based on the household consumption of electricity. Table 29 shows the number of persons who reported receiving an electricity subsidy by the reported annual value of the subsidy.

### 29 ELECTRICITY SUBSIDIES

Reported annual value	No.	%
Less than \$1,000	29	38
\$1,000 or more	4	5
Amount not known	44	57
<b>Total</b>	<b>77</b>	<b>100</b>

Medivac All Christmas Island residents are entitled to a Medivac subsidy to cover the cost of airlifting to the Australian mainland for hospitalisation or medical treatment. In the event of an urgent medical evacuation, a certificate is issued by the Medical Superintendent and the Christmas Island Administration meets the cost of the flight. In accordance with the Patient Assistance Travel Scheme (PATS), recipients are required to pay a \$50 fee when utilising this service. If the Medical Superintendent deems it necessary for family members to accompany the patient, the \$50 fee covers the cost of all flights.

Receipt of a Medivac subsidy was reported by 29 persons on Christmas Island. The total value of this subsidy was \$43,800, with the majority of surveyed residents (72%) reporting that the annual value of the subsidy was between \$1,000 and \$2,000.

Vehicle Allowance A Vehicle Allowance was paid to some Christmas Island residents for the use of their own vehicle for work purposes. Some residents reported having exclusive use of a company vehicle for both work and personal use. In these cases, the resident was often unable to put a value on the subsidy. On Christmas Island, 24 persons reported receiving a Vehicle Allowance. The total reported value of this subsidy was \$40,400, however, there were six reports where the value of the subsidy could not be determined.

Furniture Removal and Storage Allowance On Christmas Island, 23 persons reported receiving a Furniture Removal and Storage Allowance from their employer. This allowance is provided to store employees' furniture and personal items on the mainland during the time that they are employed on Christmas Island. The total reported value of this subsidy was \$23,400, however, in 43% of reports the value of the subsidy could not be determined and was not included in this figure.

In the majority of cases where recipients of a Furniture Removal and Storage Allowance could not put a value on the subsidy, the reason was often because the provider of the subsidy paid the full cost of the storage directly to the storage company. For those employees that received this allowance, the number of cubic metres of storage that they were entitled to varied and was dependent on the employer.

## S U B S I D I E S

### COCOS (KEELING) ISLANDS

District Allowances As on Christmas Island, various government and non-government organisations paid their employees a District Allowance to compensate them for the extra costs involved with living on the Islands. In general, employees with dependents were paid a higher District Allowance than those without dependents, however, the actual rates paid varied depending on the employer. Residents of the Cocos (Keeling) Islands that received a Social Security pension (such as Jobsearch Allowance) were entitled to a Remote Area Allowance. As Remote Area Allowances were also paid to compensate recipients for the extra costs incurred as a result of living on the Island, reports of these two allowances have been combined.

On the Cocos (Keeling) Islands, \$382,000 worth of District Allowances were reported by 88 persons from 72 households. This corresponds with 35% of surveyed residents and 74% of surveyed households reporting that they received a District Allowance. Table 30 shows the number of persons who reported receiving a District Allowance by the reported annual value of the allowance.

### 30 DISTRICT ALLOWANCES

Reported annual value	No.	%
Less than \$3,000	15	17
\$3,000 to less than \$4,000	25	28
\$4,000 to less than \$5,000	11	13
\$5,000 to less than \$6,000	14	16
\$6,000 or more	22	25
Amount not known	1	1
<b>Total</b>	<b>88</b>	<b>100</b>

#### Free or subsidised air fares

Free or subsidised air fares were provided by some employers to those employees that had moved to the Cocos (Keeling) Islands to work. Entitlement to these air fares were dependent on the employer. Some employers paid for the employees' initial flight to the Island, while others only refunded the cost of the air travel after certain conditions of service had been met (such as after working with the organisation for a fixed period of time). Some employees were also entitled to a free flight home once a year.

On the Cocos (Keeling) Islands, \$102,400 worth of free or subsidised air fares were reported by 49 persons from 46 households. This corresponds with 19% of surveyed residents and 47% of surveyed households. Table 31 shows the number of persons who reported receiving a free or subsidised air fare by the reported annual value of the subsidy.

### 31 FREE OR SUBSIDISED AIR FARES

Reported annual value	No.	%
Less than \$2,000	27	55
\$2,000 to less than \$3,000	10	20
\$3,000 or more	10	20
Amount not known	2	4
<b>Total</b>	<b>49</b>	<b>100</b>

## S U B S I D I E S

Rent Allowances On the Cocos (Keeling) Islands, \$70,000 worth of Rent Allowances were reported by 31 persons. This corresponds with 12% of surveyed residents reporting that they received a Rent Allowance. Table 32 shows the number of subsidies reported by the reported annual value of the allowance.

There was a considerable proportion (26%) of reported Rent Allowances on the Cocos (Keeling) Islands where the value of this subsidy could not be determined. This was mainly due to the difficulty in assigning a value to the cost of the subsidy as employees often paid a reduced rent without being aware of the full value of the rent or the amount that they were being subsidised.

In some cases, rent payments also included the cost of other household expenses such as water consumption charges, electricity and general council rates. Employers generally provided subsidised rents only to those employees who had moved to the Cocos (Keeling) Islands to work.

Social Security recipients were also entitled to a Rent Allowance (known as Rental Assistance). The value of this allowance was dependent on the number of children in the household and the household income. Furthermore, recipients of Rental Assistance were required to be living in non-government accommodation.

### 32 RENT ALLOWANCES

Reported annual value	No.	%
Less than \$4,000	16	52
\$4,000 or more	7	23
Amount not known	8	26
<b>Total</b>	<b>31</b>	<b>100</b>

Vehicle Allowance A Vehicle Allowance was paid to some residents of the Cocos (Keeling) Islands for the use of their own vehicle for work purposes. Some residents reported having exclusive use of a company vehicle for both work and personal use. In these cases, the resident was often unable to put a value on the subsidy.

On the Cocos (Keeling) Islands, 16 persons reported receiving a Vehicle Allowance. The total reported value of this subsidy was \$5,500, however, there were six reports where the value of the allowance could not be determined.

Furniture Removal and Storage Allowance On the Cocos (Keeling) Islands, 13 persons reported receiving a Furniture Removal and Storage Allowance from their employer. This allowance is provided to store employees' furniture and personal items on the mainland during the time that they are employed on the Cocos (Keeling) Islands. The total reported value of this subsidy was \$6,600, however, there were nine reports where the value of the subsidy could not be determined and is not included in this figure.

In the majority of cases where recipients of a Furniture Removal and Storage Allowance could not put a value on the subsidy, the reason was due to the fact that the provider of the subsidy often paid the full cost of the storage directly to the storage company. For those employees that received a Furniture Removal and Storage Allowance, the number of cubic metres of storage that they were entitled to varied and was dependent on the employer.

## S U B S I D I E S

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Medivac As with Christmas Island residents, all residents of the Cocos (Keeling) Islands are entitled to a Medivac Subsidy to cover the cost of airlifting to the Australian mainland for hospitalisation or medical treatment. In the event of an urgent medical evacuation, a certificate is issued by the resident doctor and the Cocos (Keeling) Islands Administration meets the cost of the flight. In accordance with the Patient Assistance Travel Scheme (PATS), recipients are required to pay a \$50 fee when utilising this service. If the doctor deems it necessary for family members to accompany the patient, the \$50 fee covers the cost of all flights.

Receipt of this subsidy was reported by 11 persons on the Cocos (Keeling) Islands. The total reported value of this subsidy was \$16,500, with the majority of surveyed residents reporting that the annual value of the subsidy was less than \$4,000.

## **EXPLANATORY NOTES**

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### **FACTORS AFFECTING THE SURVEY**

An understanding of the culture and lifestyle of the Islands was developed through extensive consultations with various groups and individuals. This included Island residents, ex-islanders, staff from the Department of the Environment, Sport and Territories (DEST) (in particular, the Islands Liaison Office in Perth), community leaders, businesses and government personnel.

This awareness process identified a vast array of anecdotal information which helped to identify a number of important factors having the potential to influence aspects of household income and expenditure. The extent of subsidies, different lifestyles and infrequent expenditure on large items had to be taken into consideration during the design and implementation phases of this Survey. As far as possible, comparability was maintained with the Australian Household Income and Expenditure Survey (HIES).

While allowances could be made for some of these factors (and their effects compensated for during final processing of the Survey data), there were other factors that emerged which had the potential to affect the data in unknown or unquantifiable ways. For example, while it was known that the availability of certain goods was limited on the Islands, the effect that the closure of shipping services had on this availability could not be taken into account. The overall impact of such factors will never be fully known, and results from this Survey must therefore be used with caution.

#### **Timing of the Survey**

In the Australian HIES, sampling of households is spread evenly over a 12 month period to minimise the effect of seasonal expenditure patterns on the final results. Due to cost and timing constraints, a similar approach was not feasible for this Survey. Instead, the Survey collected data over a four week period on each of the Islands (12 August 1995 to 9 September 1995 on Christmas Island and 30 August 1995 to 27 September 1995 on the Cocos (Keeling) Islands). Consequently, estimates of household expenditure for those items that were collected through the personal diaries may not be a true reflection of Island expenditure on these items over a full 12 months. This is mainly due to:

- certain goods not always being available because of the non arrival or irregularity of supply ships (for further information, see Stateships on page 76);
- the irregularity or infrequency of the residents' purchasing patterns; and
- the fact that many Island residents make bulk purchases of food and/or clothing either before they come to live on the Islands or during annual visits to the mainland (either Australia or Malaysia). Anecdotal evidence indicated that these types of purchases often occur during the summer months. Because the Survey was to be conducted in August and September, such bulk purchases were not expected to be reported in any of the diaries.

Since the diary period could not cover a full 12 months, the Survey was timed to minimise the effects of major seasonal factors such as school holidays, festivals, religious occasions and the cyclone season. On Christmas Island, however, the Survey coincided with the Moon Festival and was immediately followed by the Festival of the Hungry Ghost.

## EXPLANATORY NOTES

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Treatment of freight	<p>The Joint Parliamentary Standing Committee report was particularly concerned with the high cost of freight and how this affected the cost of living on the Islands. The ABS was unable to collect direct measures of the cost of freight for the following reasons.</p> <ul style="list-style-type: none"><li>▪ In instances where household purchases were bought at an on-Island store or agency, it was not always practicable to split the total cost into the cost of the goods and the cost of the freight.</li><li>▪ It was not possible to impute the freight component by assuming that it was the simple difference between the cost of the item from its source and the cost on the Islands. This difference could have been attributed to a range of factors including different profit margins between the Islands and the mainland, extra handling costs, decisions by the seller to subsidise the freight costs on certain items (e.g. perishables) and decisions by the stevedores on the priority for unloading and delivery of containers. Research showed that the extent to which a container was filled could also determine the freight costs.</li><li>▪ Investigations prior to the Survey indicated that residents would not know the freight costs of all the items they purchased, as they are usually quoted a delivered price when they order goods. This was the most compelling reason for not collecting the cost of freight separately.</li></ul>
Stateships	<p>Previously, the Western Australian Coastal Shipping Commission (Stateships) serviced the South East Asia region. The people of the Christmas and Cocos (Keeling) Islands relied on this service for the majority of their fresh food and other commodities. On 3 June 1995, the Premier of Western Australia announced his Government's decision to wind up the Stateships service following protracted waterfront action in the port of Fremantle.</p> <p>The last Stateships vessel to travel to the Islands arrived at the Cocos (Keeling) Islands on 18 July 1995 and at Christmas Island on 20 July 1995. Subsequently, supplies were sent to the Islands via aeroplane (incurring higher freight costs) until another shipment of goods via Singapore could be organised. This shipment arrived at Christmas Island on 17 August 1995, five days after the commencement of the Survey on the Island. The same ship was sent to Christmas Island again, arriving with supplies on 12 September 1995, three days after the Survey was completed.</p> <p>After the 18 July shipment, no ships arrived on the Cocos (Keeling) Islands until 22 September 1995, just five days before the Survey was due to finish and over two months after the previous shipment. Except for a few fresh vegetables, this ship was not unloaded until after the Survey was completed.</p> <p>The impact on the Survey of changed shipping arrangements could have been significant, although there is no clear measure of how significant. It is known that the buying patterns of Island residents vary significantly from the buying patterns of Perth residents. As Islander households often make their purchases in bulk, when a ship with fresh supplies arrives, the Island residents tend to purchase large quantities of goods, whereas they tend to make few or no purchases at times of limited availability.</p>

## EXPLANATORY NOTES

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- Strata titling Prior to 1992, the Commonwealth owned all land on Christmas Island. Under the Housing Policy issued in September 1992, the Commonwealth agreed to sell about 100 houses and 20 blocks of strata titled units to their long term residents. The Christmas Island Administration arranged the strata titling agreements with the tenants and rent payments ceased in 1992. By 1994, the Administration was advising residents that the strata titling arrangements had been finalised and as a result, residents began to arrange loans. However, due to a dispute that arose regarding stamp duty payments, the strata titling process was stopped and when the dispute was resolved in 1995, final settlement of the units began.
- At the time of the Survey, these units were still in the process of being strata titled. About half of the households that were categorised as living rent free were actually in the process of finalising their strata titling arrangements. These households were not making any rent payments, nor were they making mortgage payments as their loan details had not been finalised. As these households were considered to be in a situation which was unique to Christmas Island, they were categorised along with other households that were living rent free.
- Language difficulties Although English is the official language of the Islands, there are many residents on both the Christmas and Cocos (Keeling) Islands whose English is limited. To overcome this potential problem the questionnaires were simplified as much as possible and extensive use was made of on-Island assistants who acted as interpreters for the ABS interviewing team. The assistants also helped those people who had difficulty writing their expenditure in their diaries. In some households, diaries were completed with the help of older children who learned English at school. Most of the diaries completed in languages other than English were translated by the on-Island assistants before being returned to the mainland for processing. In addition, diaries were provided in Malay and Chinese for those who could not read English.
- Goods caught or grown Anecdotal information received prior to the conduct of the Survey indicated that a large proportion of households on the Islands caught substantial amounts of fish, which they used for their own consumption, or gave away to friends or relatives. Furthermore, it was reported that householders spend a large proportion of their time fishing and collecting firewood from the neighbouring islands in the atoll. Some households raise chickens for eggs and grow fruit and vegetables for their own consumption. Since this behaviour could substantially influence the households' spending patterns, an extra section was included in the personal diaries, which was not included in the Australian HIES, to collect information on goods caught or grown.

## **EXPLANATORY NOTES**

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### **CONCEPTS AND DEFINITIONS**

This section provides information on the major concepts used in the Survey. For further information on other concepts used in this Survey, see Glossary.

#### **Households**

The household was the basic unit of analysis in this Survey. It is defined as a group of people who usually reside and eat together. This may be:

- a one-person household. That is, a person who makes provision for his or her own food or other essentials for living without combining with any other person; or
- a multi-person household. That is, a group of two or more persons, living within the same dwelling, who make common provision for food or other essentials for living. The persons in the group may pool their income to a greater or lesser extent. They may be related or unrelated persons or a combination of both.

The household was adopted as the basic unit of analysis because it was assumed that household goods and services were shared at this level. If persons were the basic unit of analysis, then it would be difficult to know how to attribute to individual household members the use of shared items such as food, accommodation and household goods.

The use of the household as the basic unit of analysis required that estimates of expenditure and income were based on the sum of the expenditure and income of all household members. Intra-household transfers, however, were excluded. For example, if one member of the household were to buy a car from another member of the same household, then this would not represent an increase in the amount of income received by the household or an increase in the expenditure made by the household. If such transfers were to be included in household estimates of income and expenditure, then income and expenditure would be counted twice.

#### **Expenditure**

This Survey produced estimates of average weekly household expenditure on different commodities and services for the year ending September 1995.

Expenditure can be measured using different approaches. This Survey adopted an acquisitions approach, whereby the full cost payable by a household in acquiring a good or service was collected. The full cost was collected regardless of whether the household actually paid for or consumed the good or service within the period.

Expenditure on goods and services was classified according to the Household Expenditure Survey Commodity Classification List (HESCL). The HESCL is made up of 424 detailed commodity classifications, which have been aggregated to 99 medium level groups and 17 broad groups. Due to the complex nature of the derivation procedure, income tax (broad commodity group 14) was not estimated in this Survey. For an abridged version of the classification, see Appendix A.

This Survey measured net or out of pocket expenditure on goods and services for private purposes. It excluded expenditure for business and other investment purposes. Estimates do not refer to the full costs of goods and services used but to the net costs payable by the household. If a refund or trade-in was received or was expected to be received, the amount of the refund was deducted from expenditure to produce net expenditure. Where the refund or trade-in exceeded the cost of the good or service, the expenditure was recorded as negative.

## EXPLANATORY NOTES

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<i>Expenditure in-kind</i>	Estimates of expenditure included the full retail value of employer subsidised goods and services for food, alcohol, tobacco, clothing and footwear. Employer subsidies for other items, such as the use of vehicles, housing costs, electricity and telephone services were not included because subsidies could not be differentiated from refunds (for further information, see Subsidies on page 68).
<i>Timing of expenditure</i>	The total period covered by expenditure estimates is a function of the recall or reporting period at the time of interview and the timing of interviewing. Different expenditure items were collected for different periods and interviewing was conducted between 12 August 1995 and 9 September 1995 on Christmas Island, and between 30 August 1995 and 27 September 1995 on the Cocos (Keeling) Islands.  For most types of expenditure, data were taken from diaries in which survey participants recorded their daily expenditure over a two week period. Diary recording began the day after the interview and all diaries were filled in between 13 August 1995 and 27 September 1995. Diary derived estimates therefore refer to expenditure during this period.
	Other estimates were derived from the group questionnaire which collected expenditure information for goods and services on a recall basis. Items bought less frequently were collected over periods longer than the two week diary reporting period so that sufficient numbers of households would report expenditure to enable the calculation of more reliable expenditure estimates. For example, Survey participants were asked to recall how much they spent on motor vehicle registration over the last 12 months.
	Recall periods differed between items, ranging from the household's last payment for rent payments to two years for house purchases. An extended recall period was used for some items in the group questionnaire (12 months as opposed to the three months usually used in the Australian HIES) in an attempt to compensate for the fact that expenditure on some large items was known to be less frequent on the Islands than in Perth. While it is possible that this longer period may have caused some recall difficulties, there is no way to quantify this effect.
	In general, longer periods were used for items which were expensive, were acquired infrequently or at irregular intervals. Shorter periods were used for items which were purchased more frequently or were less significant and therefore, not well remembered. The use of different recall periods means that estimates for different expenditure items, in some cases, refer to different periods.
	Note that expenditure recorded in the diaries on items covered by the group questionnaire was deleted from the diaries to avoid double counting. For example, the group questionnaire collected information on rent payments, so any rent payments reported in the diaries were deleted.
<i>Weekly household expenditure</i>	Estimates of weekly household expenditure do not refer to any given week. They were derived by dividing reported expenditure for all members of the household by the number of weeks in the relevant recall or reporting period.

## EXPLANATORY NOTES

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Income	<p>Although this Survey is primarily a survey of household expenditure, information was also collected on household income because the level of household income is a major determinant of expenditure. Income levels and sources can be used to identify groups of special interest. For example, households receiving government pensions and benefits, earning low or high incomes, earning wages and salaries, or receiving other types of income.</p> <p>The income data collected in this Survey relates to gross amounts of recurring and usually regular cash flows. Gross income is income received prior to the deduction of personal income tax (which was not estimated by this Survey). Average weekly household income estimates exclude payments which are not regular payments, for example, capital gains and losses (such as profit from buying and selling shares).</p> <p>It should be noted that the final data excluded income-in-kind (e.g. the use of a company vehicle). This was primarily due to the large proportion of households which were unable to provide a dollar value for this type of income, leading to questionable accuracy of the data.</p>
Sources of income	<p>Income was collected according to source. Main sources of income include income from wages and salaries, own business income, government pensions and benefits and other income. As income was only collected from persons aged 15 years or over, income of children aged less than 15 years was collected from the first parent or guardian interviewed. Only values of income which were readily accessible to the child or the parent or guardian were collected.</p>
Timing of income	<p>The total period covered by income estimates is a function of the recall period at the time of interview and the timing of interviews. Different income items were collected for different periods. The recall period for employees' usual pay was the last pay period and for employees' leave loading and regular bonuses it was the last 12 months. For own business income, the recall period was the last financial year, or the previous financial year if the last financial year could not be provided. For property income, the recall period was the last financial year and for cash transfer income (such as government pensions and benefits, regular superannuation or life insurance payments) it was the last payment.</p>
 Weekly household income	<p>Estimates of weekly income are derived by dividing the sum of each household member's personal income plus children's income by the number of weeks over which it was collected. Thus, estimates of weekly income do not refer to any given week but to usual weekly income.</p>
Difference between income and expenditure	<p>Although comparisons can be made between average weekly household expenditure and average weekly household income, it would be misleading to take the difference between the two as a measure of savings. There are several reasons for this.</p> <ul style="list-style-type: none"><li>▪ For individual households, expenditure does not cover all current payments because it is collected using an acquisitions approach.</li><li>▪ Expenditure estimates for different items refer to different periods.</li><li>▪ Measures of income do not cover all sources of funds which might be used to finance current expenditure.</li><li>▪ Income estimates for different sources refer to different periods.</li></ul> <p>Hence, income and expenditure estimates do not balance for individual households or for groups of households. The difference between income and expenditure cannot be considered to be a measure of savings.</p>

## EXPLANATORY NOTES

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### SURVEY METHODOLOGY

**Scope** The population from which the survey sample was drawn consisted of residents of private dwellings on the Christmas and Cocos (Keeling) Islands. Private dwellings included houses, flats and units and other structures that were used as places of residence at the time of the interview. Excluded from the Survey were:

- non-private dwellings, including hotels, boarding houses and institutions. Persons residing in non-private dwellings are usually excluded from ABS household expenditure surveys because of the differences in their lifestyle and accommodation. These differences can result in different spending patterns which would need to be evaluated separately;
- households where all main spenders (a spender is a usual resident aged 15 years or over) had been living on the Islands for less than six months; and
- households where one or more of the main spenders was not resident on the Islands at the time of the Survey.

**Coverage** Information was collected from usual residents of in-scope households on the Christmas and Cocos (Keeling) Islands. Usual residents were residents who regarded the dwelling as their own or main home. Others present were considered to be visitors and were not asked to participate in the Survey.

Where an in-scope household had usual residents who were not main spenders and who were not currently resident on the Islands, any expenditure incurred on their behalf was included as household expenditure. However, these residents were not required to complete an individual questionnaire or fill in a personal diary. For example, the household may consider a 17 year old student who is studying at school in Perth as a usual resident of the household. Expenditure on their behalf is part of the cost of living on the Islands and was consequently included in the Survey.

**Data collection** The Survey was conducted on each of the Islands by a team of experienced ABS interviewers and their supervisors, together with on-Island assistants. Information was collected in two ways.

Firstly, interviews were conducted in households where all the main household members had lived on the Islands for six months or more. Two Survey documents were used to collect the information.

- A *group questionnaire* was used to collect data from all usual residents in the selected household. Information was obtained about household expenditure for the previous 12 months on major or infrequently purchased items such as furniture, vehicles, education and housing costs. Where actual records were not kept, householders were asked to recall their expenditure information.
- An *individual questionnaire* was used to collect data from each household spender about income (including children's income) and about employment characteristics.

Secondly, each spender was asked to record their daily expenditure in two personal diaries, one diary for each week over a two week period. The diaries were designed to record expenditure on day-to-day items (such as food and petrol), minor items of possible income (such as goods obtained for free or at a reduced price from employers or any gambling wins) and goods caught or grown for household use.

## EXPLANATORY NOTES

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<b>SURVEY DESIGN AND ESTIMATION</b>	This section describes how data supplied by a sample of households on the Christmas and Cocos (Keeling) Islands were used to derive estimates for all households residing in private dwellings.
Sample design	For the purposes of data collection, Christmas Island was divided into six regions – Kampong, Settlement, Silver City, Drumsite, Poon Saan <sup>1</sup> and Poon Saan (other) <sup>2</sup> , and the Cocos (Keeling) Islands were divided up into two regions – Home Island and West Island.  A sample was selected from each of these regions in such a way as to produce reliable estimates of key variables for households resident in private dwellings on the Christmas and Cocos (Keeling) Islands.
Sample loss	Sample loss refers to sampling units (i.e. private dwellings) which were selected in the sample but were subsequently determined to be out-of-scope. Out-of-scope dwellings included those which were found to be vacant, under construction, converted to non-dwellings or demolished, as well as dwellings containing only residents who were considered to be out-of-scope. On Christmas Island, 118 dwellings were determined to be out-of-scope while on the Cocos (Keeling) Islands there were 26 out-of-scope dwellings.
Fully non-responding households	Fully non-responding households included those affected by death or illness of a household member as well as those in which the reference person or spouse either could not be contacted, had language problems, or refused to participate. Of all households selected in the sample, 69 households on Christmas Island and seven households on the Cocos (Keeling) Islands did not respond to survey approaches and therefore did not contribute to the estimates of expenditure or income.
Partially responding households and imputation	Partially responding households are those which provided most of the required information but were unable, or unwilling, to provide all of it. These households were retained in the sample and, where possible, their missing values were deduced. To exclude such households could bias the results since they may differ systematically from households providing all of the required information.  For those questions which were not fully completed, responses were clerically imputed using supplementary information. This included data from other households with similar expenditure, extra information provided by the householders (such as the percentage of their wage paid in leave loading, which was then converted into a dollar amount during processing), expenditure data from similar items recorded in other diaries, shops or providers of subsidies. Where the information could not be deduced, the value was left as missing and did not contribute to estimates of income or expenditure.
Final sample	Households contributing to the Survey results completed the majority of their personal diaries. Where some or all household members completed the diaries for only one of the two weeks, this week was taken to be representative of that household member's weekly expenditure. Where household members did not complete a diary for either of the two weeks, the household was excluded from contributing to the Survey results if the missing diaries belonged to what was considered to be a main spender. Only five households were excluded from the Survey for this reason.

## **EXPLANATORY NOTES**

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Weighting	Weights are values by which information for sample households are multiplied to produce estimates for the whole population. Every household in a particular collection district was given the same weight. The weights for this Survey were based on the sample design and were equal to the estimated number of households in the collection district divided by the number of households in the in-scope sample for that collection district.
Estimation	Estimates produced from this Survey are usually in the form of aggregates (e.g. total number of households whose main source of income comes from wages and salaries), or averages (e.g. average weekly household expenditure on fuel and power). For aggregates, the estimate was obtained by summing the weighted values of the responding households in the required group. Averages were obtained by adding the weighted household values, and dividing the result by the estimated number of households. Note that the denominator is the total number of households, not just the number of households which reported expenditure on the particular item.

### **ENDNOTES**

- <sup>1</sup> Comprised mainly of persons of Chinese origin.
- <sup>2</sup> Comprised only of casino workers' quarters, including Taman Sweetland.

## TECHNICAL NOTES

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**RELIABILITY OF ESTIMATES** The estimates in this publication are based on a sample of households on the Christmas and Cocos (Keeling) Islands. The estimates are subject to two types of error: non-sampling error and sampling error.

- Non-sampling error Non-sampling error can occur whether the estimates are derived from a sample or from a complete enumeration. Three major sources of non-sampling error are:
- the inability to obtain data from all households included in the sample. For example, due to the dwelling being vacant at the time of the Survey;
  - errors in reporting on the part of both the respondents and the interviewers. These reporting errors may arise through inappropriate wording of questions, misunderstanding of what data are required, inability or unwillingness to provide accurate information and mistakes in answers to questions. For example, errors due to respondents omitting expenditure from their diaries, or errors in the recording of expenditure by interviewers during the household interview; and
  - errors arising during processing of the Survey data. These processing errors may arise through mistakes in coding and data recording.

Non-sampling errors are difficult to measure in any collection. However, every effort was made to minimise these errors. In particular, the effect of the reporting and processing errors described above was minimised by careful questionnaire design, intensive training and supervision of interviewers, asking respondents to refer to records whenever possible and by extensive editing and quality control checking at all stages of data processing.

One area where non-sampling errors are known to have occurred was in the section of the questionnaire which asked respondents about the subsidies that they received as a result of living on the Islands. Although the extent of this error cannot be quantified, it is known that a substantial proportion of respondents were unable to provide accurate information on the value of the subsidies that they were receiving. This was particularly the case with rent, electricity and meal allowances.

- Sampling error As the estimates from this Survey are based on a sample of households, they are subject to sampling variability and estimates may differ from the figures that would have been produced if information had been collected for all households on the Islands.

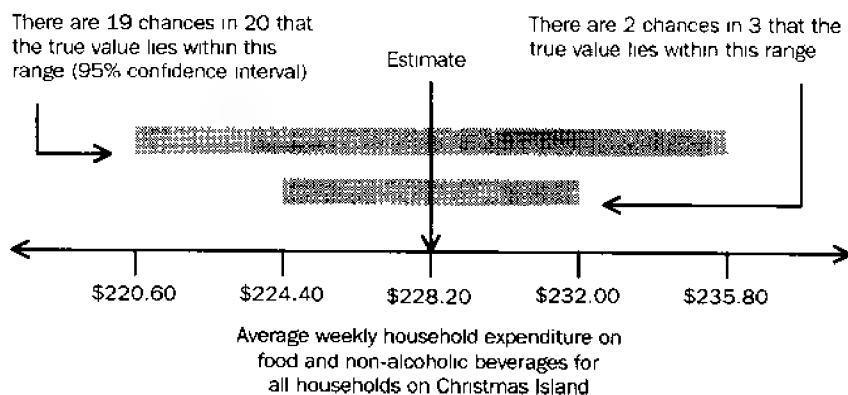
Sampling variability measures the extent to which an estimate may vary from the true figure purely by chance. One measure of sampling variability is called the standard error (often abbreviated to SE). The standard error measures the likely difference between an estimate based on a sample and the true estimate that would have been derived had all the households in the population been surveyed.

There are two major factors which influence a standard error. The first is the sample size, whereby the larger the sample size, the more accurate the estimate and the smaller the standard error. The second is the variability of item values between households. For instance, if all households spend a very similar amount of money on clothing and footwear, then the likely difference between the estimate of average weekly household expenditure spent on clothing and footwear based on a sample and the true average weekly household expenditure spent on clothing and footwear on the Islands would be small and this would be reflected in a small standard error.

## TECHNICAL NOTES

There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all households had been enumerated, and about 19 chances in 20 that the difference will be less than two standard errors.

For example, Table 6 shows that the estimated average weekly household expenditure on food and non-alcoholic beverages for all households on Christmas Island was \$228.20. The standard error for this estimate is \$3.80 (see page 90). Hence, there are about two chances in three (66.7% chance) that the true value lies within \$3.80 of the estimate (i.e. between \$224.40 and \$232.00) and 19 chances in 20 (95% chance) that it lies within \$7.60 of the estimate (or between \$220.60 and \$235.80). This range is called the 95% confidence interval.



The Relative Standard Error (RSE) is the standard error expressed as a percentage of the estimate. Only estimates with relative standard errors of 25% or less are considered sufficiently reliable for most purposes. However, estimates with higher relative standard errors have been included in this publication because they are the only estimates available. Such estimates should be treated with caution.

For the example given above, the relative standard error for the estimate of average weekly household expenditure on food and non-alcoholic beverages for all households on Christmas Island is 1.7% (i.e.,  $RSE = (\$3.80 \div \$228.20) \times 100 = 1.7\%$ ).

## TECHNICAL NOTES

### STANDARD ERROR CALCULATIONS

Standard errors have been calculated for each estimate shown in this publication. These are shown on pages 87 through 103.

Estimates of totals (such as total number of households whose main source of income comes from wages and salaries), were obtained by summing the weighted values of the responding households in the required group. Variances and covariances for these estimates have been calculated using the standard formulae for stratified list based sampling (for further information, see Hansen M.H., Hurwitz W.N. & Madow W.G. (1953) *Survey Methods and Theory*, John Wiley & Sons, New York).

Estimates of averages (such as average weekly household expenditure on fuel and power) were obtained by adding the weighted household values, and then dividing by the estimated number of households in the appropriate category. Note that the denominator is the total number of households and not just the number of households which have reported expenditure on the particular item. Variances have been estimated using the method of Taylor Series Linearisation (for further information, see Wolter K.L. (1985) *Introduction to Variance Estimation*, Springer Series in Statistics, Springer-Verlag, New York).

The formula that was used to estimate the standard error for estimates of average weekly household expenditure for a commodity code  $C$  was :

$$SE(\hat{Av}_C) = \sqrt{\frac{1}{\hat{N}^2} \left[ Var(\hat{X}_C) + \left( \frac{\hat{X}_C}{\hat{N}} \right)^2 Var(\hat{N}) - \frac{2\hat{X}_C}{\hat{N}} Cov(\hat{X}_C, \hat{N}) \right]}$$

where :

$\hat{Av}_C = \frac{\hat{X}_C}{\hat{N}}$  = the estimated average weekly household expenditure for commodity code  $C$ ;

$\hat{X}_C$  = the estimated total weekly expenditure for commodity code  $C$ ; and

$\hat{N}$  = the estimated number of in-scope households in the population.

Similar formulae were used to calculate the standard errors for other estimates in this publication.

The relative standard error for estimates of average weekly household expenditure is calculated using the following formula. A similar formula can be used to calculate the relative standard errors for other estimates in this publication.

$$RSE(\hat{Av}_C) = \frac{SE(\hat{Av}_C)}{\hat{Av}_C} \times 100\%$$

### CALCULATION OF STANDARD ERRORS FOR DERIVED STATISTICS

Many figures of interest may be derived by taking sums, differences and ratios of the tabulated data. Approximate standard errors for these 'derived estimates' can be calculated using the formulae in Appendix D of the HES User Guide (ABS Cat. No. 6527.0).

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 1, ESTIMATED RESIDENT POPULATION BY AGE AND SEX, CHRISTMAS ISLAND, SEPTEMBER 1995

Age group	Males		Females		Persons	
	No.	%	No.	%	No.	%
0 - 4	9	0.9	9	1.1	14	0.8
5 - 9	10	1.0	9	1.1	14	0.8
10 - 14	8	0.8	9	1.1	13	0.7
15 - 24	11	1.1	9	1.1	15	0.8
25 - 34	14	1.4	15	1.7	21	1.2
35 - 44	12	1.2	11	1.3	18	1.0
45 - 54	10	1.0	7	0.8	13	0.7
55 and over	5	0.5	3	0.4	7	0.4
<b>Total</b>	<b>26</b>	—	<b>28</b>	—	<b>44</b>	—

### STANDARD ERRORS FOR TABLE 3, HOUSEHOLD COMPOSITION

Household composition	Christmas Island		Perth <sup>1</sup>	
	No.	%	No.	%
Person living alone	15	2.3	12 400	2.7
Married or de facto couple only	12	1.9	10 300	2.3
Married or de facto couple living only with their unmarried child(ren)	17	2.5	12 600	2.9
One parent living only with his/her unmarried child(ren)	5	0.8	9 200	1.9
All other households	10	1.6	9 400	2.0
<b>All households</b>	<b>16</b>	—	<b>19 900</b>	—

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0)

### STANDARD ERRORS FOR TABLE 4, HOUSEHOLD TENURE TYPE

Tenure type	Christmas Island		Perth <sup>1</sup>	
	No.	%	No.	%
Owned	11	1.7	10 300	2.5
Being purchased	8	1.2	14 000	3.2
Rented	19	2.3	14 800	3.2
Living rent free / Strata titled	11	1.7	3 900	0.8
<b>All households</b>	<b>16</b>	—	<b>19 900</b>	—

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0)

### STANDARD ERRORS FOR TABLE 5, SOURCE OF HOUSEHOLD INCOME

Source of income	Christmas Island		Perth <sup>1</sup>	
	%		%	
Employee income	1.6		3.7	
Own business income	1.3		2.0	
Government pensions and benefits	0.4		0.9	
Other sources	0.3		1.1	
<b>Total household income</b>	<b>1.3</b>	—	—	—

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0).

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 6, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, CHRISTMAS ISLAND AND PERTH

Broad expenditure group	Christmas Island		Perth <sup>i</sup>	
	\$	%	\$	%
<i>Average weekly household expenditure</i>				
Current housing costs (selected dwelling)	1.90	0.2	4.80	0.6
Fuel and power	0.60	-	0.60	0.1
Food and non-alcoholic beverages	3.80	0.5	3.40	0.5
Alcoholic beverages	2.50	0.3	1.60	0.2
Tobacco	0.70	-	1.20	0.2
Clothing and footwear	2.80	0.3	3.00	0.4
Household furnishings and equipment	2.40	0.2	5.70	0.8
Household services and operations	2.10	0.2	1.60	0.2
Medical care and health expenses	1.50	0.2	1.70	0.2
Transport	5.40	0.6	7.90	1.1
Recreation	5.70	0.6	6.00	0.8
Personal care	0.80	0.1	1.20	0.2
Miscellaneous commodities and services	7.00	0.9	4.20	0.6
<b>Total commodity and service expenditure</b>	<b>8.40</b>	<b>1.2</b>	<b>20.60</b>	<b>2.8</b>
Mortgage repayments - principal (selected dwelling)	3.50	0.4	5.60	0.7
Other capital housing costs	8.20	1.1	25.40	3.4
Superannuation and life insurance	1.80	0.2	2.20	0.3
<b>Total household expenditure</b>	<b>12.90</b>	<b>1.8</b>	<b>33.70</b>	<b>4.5</b>
<i>Household characteristics</i>				
Average weekly household income (\$)	13.10	-	34.90	-
Average number of persons in the household	-	-	0.1	-
Average number of employed persons in the household	-	-	0.1	-
Estimated number of households in population	16	-	19 900	-

<sup>i</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0). They were then updated to correspond to the adjusted Perth figures.

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 7, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION, CHRISTMAS ISLAND

Broad expenditure group	Kampong		Settlement		Silver City	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	5.00	0.7	3.10	0.4	8.40	0.9
Fuel and power	1.30	0.1	2.30	0.3	1.10	—
Food and non-alcoholic beverages	8.40	1.2	10.00	1.5	7.50	1.1
Alcoholic beverages	6.40	0.8	5.90	0.8	4.30	0.5
Tobacco	1.30	0.1	1.60	0.2	1.50	0.1
Clothing and footwear	5.20	0.7	11.20	1.6	5.80	0.6
Household furnishings and equipment	3.30	0.4	11.20	1.5	6.50	0.7
Household services and operations	2.60	0.3	12.40	1.7	5.50	0.5
Medical care and health expenses	2.30	0.3	4.30	0.6	2.60	0.2
Transport	10.10	1.4	21.10	3.2	12.60	1.4
Recreation	9.80	1.0	7.50	0.5	13.30	1.2
Personal care	1.00	0.1	2.90	0.4	1.30	0.1
Miscellaneous commodities and services	5.70	0.7	4.30	0.5	14.10	1.4
<b>Total commodity and service expenditure</b>	<b>19.50</b>	<b>2.9</b>	<b>33.20</b>	<b>5.1</b>	<b>17.10</b>	<b>2.0</b>
Mortgage repayments – principal (selected dwelling)	1.60	0.2	3.40	0.5	26.30	2.9
Other capital housing costs	17.70	2.5	14.30	2.1	36.10	4.1
Superannuation and life insurance	2.60	0.3	4.40	0.5	4.30	0.5
<b>Total household expenditure</b>	<b>28.40</b>	<b>4.1</b>	<b>39.30</b>	<b>6.1</b>	<b>51.30</b>	<b>6.1</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	34.20		61.60		98.40	
Average number of persons in the household		0.1		0.1		0.2
Average number of employed persons in the household	—		0.1		0.1	
Estimated number of households in population	6		4		4	

## TECHNICAL NOTES

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### STANDARD ERRORS FOR TABLE 7, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION, CHRISTMAS ISLAND – CONTINUED

Broad expenditure group	Drumsite		Poon Saan <sup>1</sup>		Poon Saan (other)		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	8.20	0.7	1.70	0.2	2.10	0.2	1.90	0.2
Fuel and power	1.50	—	1.20	0.1	0.20	—	0.60	—
Food and non-alcoholic beverages	11.60	1.3	12.10	1.1	1.10	0.2	3.80	0.5
Alcoholic beverages	5.80	0.6	3.00	0.3	6.30	0.9	2.50	0.3
Tobacco	2.30	0.2	1.20	0.1	1.90	0.2	0.70	—
Clothing and footwear	4.00	0.4	1.40	0.1	8.10	1.2	2.80	0.3
Household furnishings and equipment	9.00	0.7	4.70	0.5	5.20	0.7	2.40	0.2
Household services and operations	11.00	0.9	4.20	0.5	3.50	0.5	2.10	0.2
Medical care and health expenses	7.10	0.8	1.90	0.2	4.40	0.6	1.50	0.2
Transport	10.00	0.7	15.30	1.7	10.70	1.4	5.40	0.6
Recreation	11.00	0.6	13.00	1.5	15.30	1.4	5.70	0.6
Personal care	1.90	0.2	1.40	0.2	2.60	0.3	0.80	0.1
Miscellaneous commodities and services	15.40	1.6	12.70	1.4	23.30	3.6	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>20.20</b>	<b>2.2</b>	<b>35.00</b>	<b>4.6</b>	<b>39.90</b>	<b>6.6</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments – principal (selected dwelling)	5.10	0.5	1.40	0.1	—	—	3.50	0.4
Other capital housing costs	43.70	4.1	10.10	1.2	9.20	1.5	8.20	1.1
Superannuation and life insurance	9.40	1.0	3.00	0.3	4.60	0.7	1.80	0.2
<b>Total household expenditure</b>	<b>57.30</b>	<b>6.2</b>	<b>38.70</b>	<b>5.2</b>	<b>39.10</b>	<b>6.5</b>	<b>12.90</b>	<b>1.8</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	38.20		47.40		64.20		13.10	
Average number of persons in the household	0.1		0.2		—		—	
Average number of employed persons in the household	0.1		0.1		0.1		—	
Estimated number of households in population	4		3		13		16	

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## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 8, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD INCOME GROUP, CHRISTMAS ISLAND

Broad expenditure group	Lowest third		Middle third		Highest third		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	3.70	0.8	4.20	0.5	4.20	0.5	1.90	0.2
Fuel and power	1.00	0.1	1.20	0.1	1.40	0.1	0.60	—
Food and non-alcoholic beverages	11.40	2.5	14.50	2.1	12.10	1.6	3.80	0.5
Alcoholic beverages	5.10	1.0	4.20	0.5	5.10	0.6	2.50	0.3
Tobacco	1.30	0.3	1.10	0.1	1.40	0.1	0.70	—
Clothing and footwear	3.50	0.7	6.80	0.8	3.40	0.4	2.80	0.3
Household furnishings and equipment	4.20	0.7	5.10	0.6	3.40	0.4	2.40	0.2
Household services and operations	2.10	0.4	3.30	0.4	5.40	0.6	2.10	0.2
Medical care and health expenses	1.80	0.3	3.00	0.4	3.20	0.4	1.50	0.2
Transport	7.70	1.5	7.80	0.9	12.00	1.4	5.40	0.6
Recreation	7.70	1.4	14.00	1.7	10.40	1.3	5.70	0.6
Personal care	1.20	0.2	1.50	0.1	1.90	0.2	0.80	0.1
Miscellaneous commodities and services	6.30	1.1	17.80	2.3	8.40	0.9	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>26.30</b>	<b>5.1</b>	<b>42.20</b>	<b>5.5</b>	<b>33.60</b>	<b>4.2</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments – principal (selected dwelling)	1.40	0.2	10.10	1.2	1.10	0.1	3.50	0.4
Other capital housing costs	11.60	2.2	17.10	2.1	13.00	1.5	8.20	1.1
Superannuation and life insurance	1.60	0.3	2.70	0.3	4.60	0.5	1.80	0.2
<b>Total household expenditure</b>	<b>31.50</b>	<b>5.2</b>	<b>50.60</b>	<b>5.7</b>	<b>37.20</b>	<b>4.2</b>	<b>12.90</b>	<b>1.8</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	22.80		33.50		61.30		13.10	
Average number of persons in the household	0.2		0.2		0.1		—	
Average number of employed persons in the household	0.1		0.1		0.1		—	
Estimated number of households in population	14		17		18		16	

## TECHNICAL NOTES

**STANDARD ERRORS FOR TABLE 9, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY PRINCIPAL SOURCE OF HOUSEHOLD INCOME, CHRISTMAS ISLAND**

Broad expenditure group	Wages and salaries		Government pensions and benefits		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	2.00	0.2	5.40	1.4	1.90	0.2
Fuel and power	0.60	—	1.70	0.4	0.60	—
Food and non-alcoholic beverages	5.00	0.7	14.40	4.3	3.80	0.5
Alcoholic beverages	2.80	0.3	6.50	1.5	2.50	0.3
Tobacco	0.70	0.1	2.30	0.5	0.70	—
Clothing and footwear	3.20	0.4	3.40	0.8	2.80	0.3
Household furnishings and equipment	2.50	0.3	2.80	0.6	2.40	0.2
Household services and operations	2.40	0.2	3.40	0.8	2.10	0.2
Medical care and health expenses	1.70	0.2	2.10	0.5	1.50	0.2
Transport	6.30	0.7	7.40	1.8	5.40	0.6
Recreation	6.50	0.7	4.90	1.2	5.70	0.6
Personal care	1.00	0.1	0.90	0.2	0.80	0.1
Miscellaneous commodities and services	8.10	1.0	3.70	0.9	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>11.40</b>	<b>1.5</b>	<b>31.30</b>	<b>9.2</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments – principal (selected dwelling)	4.10	0.5	—	—	3.50	0.4
Other capital housing costs	9.20	1.1	18.30	4.2	8.20	1.1
Superannuation and life insurance	2.10	0.2	0.30	—	1.80	0.2
<b>Total household expenditure</b>	<b>16.30</b>	<b>2.2</b>	<b>35.90</b>	<b>9.0</b>	<b>12.90</b>	<b>1.8</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	13.60		27.10		13.10	
Average number of persons in the household	0.1		0.3		—	
Average number of employed persons in the household			0.1			
Estimated number of households in population	18		7		16	

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 10, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TYPE, CHRISTMAS ISLAND

Broad expenditure group	Person living alone		Married/ de facto couple		Married/de facto couple or one parent with child(ren)		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	3.50	1.1	9.60	1.4	2.90	0.3	1.90	0.2
Fuel and power	0.90	0.2	1.70	0.2	0.90	0.1	0.60	—
Food and non-alcoholic beverages	8.30	2.9	22.90	4.4	8.30	1.1	3.80	0.5
Alcoholic beverages	6.60	1.6	8.30	1.1	2.70	0.3	2.50	0.3
Tobacco	1.70	0.4	2.00	0.3	0.80	0.1	0.70	—
Clothing and footwear	3.00	0.7	15.10	2.0	3.30	0.4	2.80	0.3
Household furnishings and equipment	5.60	1.2	3.60	0.5	3.30	0.3	2.40	0.2
Household services and operations	2.60	0.6	3.60	0.5	3.60	0.4	2.10	0.2
Medical care and health expenses	2.60	0.6	3.70	0.5	2.00	0.2	1.50	0.2
Transport	8.40	1.9	10.60	1.5	8.10	0.9	5.40	0.6
Recreation	18.30	3.9	19.00	2.8	7.20	0.8	5.70	0.6
Personal care	1.40	0.3	2.90	0.4	1.20	0.1	0.80	0.1
Miscellaneous commodities and services	20.10	4.2	31.40	4.5	5.60	0.6	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>43.40</b>	<b>9.5</b>	<b>75.00</b>	<b>12.9</b>	<b>22.30</b>	<b>2.3</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments – principal (selected dwelling)	0.70	0.1	1.80	0.2	6.30	0.7	3.50	0.4
Other capital housing costs	10.50	2.5	32.80	4.5	10.50	1.2	8.20	1.1
Superannuation and life insurance	4.34	1.0	8.60	1.2	1.90	0.2	1.80	0.2
<b>Total household expenditure</b>	<b>44.80</b>	<b>9.4</b>	<b>80.10</b>	<b>12.8</b>	<b>27.10</b>	<b>2.2</b>	<b>12.90</b>	<b>1.8</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	79.80		117.50		39.50		13.10	
Average number of persons in the household	—		0.2		0.1		—	
Average number of employed persons in the household	—		0.2		0.1		—	
Estimated number of households in population	15		12		17		16	

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 11, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TENURE TYPE, CHRISTMAS ISLAND

Broad expenditure group	Owned/ Being purchased		Rented		All households	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	3.60	0.3	2.80	0.5	1.90	0.2
Fuel and power	0.80	0.1	0.70	0.1	0.60	—
Food and non-alcoholic beverages	11.00	1.4	6.40	0.8	3.80	0.5
Alcoholic beverages	2.80	0.3	4.30	0.6	2.50	0.3
Tobacco	0.80	—	1.10	0.1	0.70	—
Clothing and footwear	3.80	0.4	4.40	0.7	2.80	0.3
Household furnishings and equipment	4.90	0.5	3.00	0.4	2.40	0.2
Household services and operations	5.20	0.5	1.90	0.3	2.10	0.2
Medical care and health expenses	1.70	0.1	2.60	0.4	1.50	0.2
Transport	7.30	0.7	8.20	1.2	5.40	0.6
Recreation	9.50	0.9	7.90	1.0	5.70	0.6
Personal care	1.10	0.1	1.30	0.2	0.80	0.1
Miscellaneous commodities and services	7.40	0.8	11.90	1.9	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>29.70</b>	<b>2.8</b>	<b>21.00</b>	<b>3.5</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments – principal (selected dwelling)	10.40	1.1	—	—	3.50	0.4
Other capital housing costs	16.30	1.6	8.10	1.3	8.20	1.1
Superannuation and life insurance	2.60	0.2	2.80	0.4	1.80	0.2
<b>Total household expenditure</b>	<b>40.30</b>	<b>3.0</b>	<b>22.00</b>	<b>3.6</b>	<b>12.90</b>	<b>1.8</b>
Household characteristics						
Average weekly household income (\$)	39.90	—	39.10	—	13.10	—
Average number of persons in the household	—	0.1	—	0.1	—	—
Average number of employed persons in the household	—	0.1	—	—	—	—
Estimated number of households in population	—	12	—	19	—	16

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 12, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY NUMBER OF USUAL RESIDENTS IN HOUSEHOLD, CHRISTMAS ISLAND

Broad expenditure group	One usual resident		Two to four usual residents		Five or more usual residents		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	3.50	1.1	3.20	0.4	5.80	0.6	1.90	0.2
Fuel and power	0.90	0.2	0.80	0.1	1.70	0.2	0.60	—
Food and non-alcoholic beverages	8.30	2.9	7.20	1.0	17.60	2.5	3.80	0.5
Alcoholic beverages	6.60	1.6	3.80	0.4	1.70	0.1	2.50	0.3
Tobacco	1.70	0.4	1.00	0.1	1.10	0.1	0.70	—
Clothing and footwear	3.00	0.7	4.30	0.5	5.90	0.6	2.80	0.3
Household furnishings and equipment	5.60	1.2	3.10	0.3	5.30	0.5	2.40	0.2
Household services and operations	2.60	0.6	3.60	0.4	3.80	0.4	2.10	0.2
Medical care and health expenses	2.60	0.6	2.50	0.3	2.30	0.2	1.50	0.2
Transport	8.40	1.9	8.40	1.0	10.00	1.1	5.40	0.6
Recreation	18.30	3.9	7.70	0.9	8.20	0.8	5.70	0.6
Personal care	1.40	0.3	1.40	0.1	1.60	0.1	0.80	0.1
Miscellaneous commodities and services	20.10	4.2	8.70	1.1	10.00	1.1	7.00	0.9
<b>Total commodity and service expenditure</b>	<b>43.40</b>	<b>9.5</b>	<b>20.90</b>	<b>1.9</b>	<b>41.70</b>	<b>5.2</b>	<b>8.40</b>	<b>1.2</b>
Mortgage repayments - principal (selected dwelling)	0.70	0.1	6.30	0.8	2.70	0.2	3.50	0.4
Other capital housing costs	10.50	2.5	9.50	1.2	27.50	2.8	8.20	1.1
Superannuation and life insurance	4.30	1.0	2.70	0.3	3.40	0.3	1.80	0.2
<b>Total household expenditure</b>	<b>44.80</b>	<b>9.4</b>	<b>25.30</b>	<b>1.7</b>	<b>56.80</b>	<b>5.9</b>	<b>12.90</b>	<b>1.8</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	79.80		35.90		56.20		13.10	
Average number of persons in the household	—		0.1		0.2		—	
Average number of employed persons in the household	—		—		0.1		—	
Estimated number of households in population	15		19		11		16	

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 13, ESTIMATED RESIDENT POPULATION BY AGE AND SEX, COCOS (KEELING) ISLANDS, SEPTEMBER 1995

Age group	Males		Females		Persons	
	No.	%	No.	%	No	%
0 - 4	4	1.6	3	0.9	5	0.9
5 - 9	2	0.8	4	1.4	5	0.8
10 - 14	4	1.3	3	1.0	5	0.8
15 - 24	4	1.3	5	1.6	7	1.1
25 - 34	3	1.1	4	1.2	6	1.0
35 - 44	4	1.4	4	1.3	7	1.1
45 - 54	4	1.3	4	1.1	6	0.9
55 and over	4	1.3	3	1.0	6	1.0
<b>Total</b>	<b>9</b>	—	<b>9</b>	—	<b>14</b>	—

### STANDARD ERRORS FOR TABLE 15, HOUSEHOLD COMPOSITION

Household composition	Cocos (Keeling) Islands		Perth <sup>1</sup>	
	No.	%	No.	%
Person living alone	1	0.9	12 400	2.7
Married or de facto couple only	1	0.8	10 300	2.3
Married or de facto couple living only with their unmarried child(ren)	5	3.0	12 600	2.9
One parent living only with his/her unmarried child(ren)	1	0.8	9 200	1.9
All other households/Extended families	4	2.9	9 400	2.0
<b>All households</b>	<b>2</b>	—	<b>19 900</b>	—

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0).

### STANDARD ERRORS FOR TABLE 16, HOUSEHOLD TENURE TYPE

Tenure type	Cocos (Keeling) Islands		Perth <sup>1</sup>	
	No.	%	No.	%
Owned	—	—	10 300	2.5
Being purchased	—	—	14 000	3.2
Rented	2	0.8	14 800	3.2
Living rent free	1	0.8	3 900	0.8
<b>All households</b>	<b>2</b>	—	<b>19 900</b>	—

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0).

### STANDARD ERRORS FOR TABLE 17, SOURCE OF HOUSEHOLD INCOME

Source of income	Cocos (Keeling) Islands		Perth <sup>1</sup>	
	%		%	
Employee income	1.9		3.7	
Own business income	0.4		2.0	
Government pensions and benefits	1.3		0.9	
Other sources	0.1		1.1	
<b>Total household income</b>	<b>1.7</b>		—	

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0).

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 18, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS, COCOS (KEELING) ISLANDS AND PERTH

Broad expenditure group	Cocos (Keeling) Islands		Perth <sup>1</sup>	
	\$	%	\$	%
<i>Average weekly household expenditure</i>				
Current housing costs (selected dwelling)	6.90	1.0	4.81	0.6
Fuel and power	0.40	0.1	0.60	0.1
Food and non-alcoholic beverages	5.60	0.6	3.38	0.5
Alcoholic beverages	0.70	0.1	1.61	0.2
Tobacco	0.30	—	1.23	0.2
Clothing and footwear	2.00	0.3	2.98	0.4
Household furnishings and equipment	2.80	0.4	5.72	0.8
Household services and operations	1.60	0.2	1.61	0.2
Medical care and health expenses	1.10	0.1	1.72	0.2
Transport	3.80	0.5	7.93	1.1
Recreation	13.30	1.7	6.01	0.8
Personal care	0.60	—	1.20	0.2
Miscellaneous commodities and services	3.60	0.5	4.16	0.6
<b>Total commodity and service expenditure</b>	<b>18.40</b>	<b>2.9</b>	<b>20.64</b>	<b>2.8</b>
Mortgage repayments - principal (selected dwelling)	—	—	5.61	0.7
Other capital housing costs	9.00	1.4	25.43	3.4
Superannuation and life insurance	1.70	0.2	2.23	0.3
<b>Total household expenditure</b>	<b>18.10</b>	<b>2.8</b>	<b>33.71</b>	<b>4.5</b>
<i>Household characteristics</i>				
Average weekly household income (\$)	16.50		34.90	
Average number of persons in the household	—	0.1	—	0.1
Average number of employed persons in the household	—	—	—	0.1
Estimated number of households in population	2		19 900	

<sup>1</sup> Standard errors for Perth have been estimated using the procedure described in the 1993-94 Household Income and Expenditure Survey publication (ABS Cat No. 6335.0). They were then updated to correspond to the adjusted Perth figures.

## TECHNICAL NOTES

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### STANDARD ERRORS FOR TABLE 19, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY REGION, COCOS (KEELING) ISLANDS

Broad expenditure group	Home Island		West Island		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	10.40	1.5	2.00	0.3	6.90	1.0
Fuel and power	0.60	0.1	0.70	0.1	0.40	0.1
Food and non-alcoholic beverages	8.50	0.9	4.50	0.7	5.60	0.6
Alcoholic beverages	—		2.00	0.3	0.70	0.1
Tobacco	0.40	—	0.50	—	0.30	—
Clothing and footwear	2.90	0.4	2.00	0.2	2.00	0.3
Household furnishings and equipment	4.00	0.6	2.40	0.4	2.80	0.4
Household services and operations	1.90	0.2	3.10	0.5	1.60	0.2
Medical care and health expenses	1.20	0.2	2.00	0.3	1.10	0.1
Transport	3.60	0.5	8.70	1.3	3.80	0.5
Recreation	20.00	2.7	3.10	0.7	13.30	1.7
Personal care	0.60	—	1.50	0.2	0.60	—
Miscellaneous commodities and services	2.40	0.3	9.50	1.3	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>27.30</b>	<b>4.4</b>	<b>10.20</b>	<b>1.1</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments – principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	8.70	1.4	20.50	3.1	9.00	1.4
Superannuation and life insurance	1.90	0.3	3.20	0.5	1.70	0.2
<b>Total household expenditure</b>	<b>24.60</b>	<b>4.0</b>	<b>23.30</b>	<b>3.5</b>	<b>18.10</b>	<b>2.8</b>
<i>Household characteristics</i>						
Average weekly household income (\$)	25.60		17.00		16.50	
Average number of persons in the household	0.1		0.1		0.1	
Average number of employed persons in the household	0.1		—		—	
Estimated number of households in population	2		1		2	

## TECHNICAL NOTES

### **STANDARD ERRORS FOR TABLE 20, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD INCOME GROUP, COCOS (KEELING) ISLANDS**

Broad expenditure group	Lowest third		Middle third		Highest third		All households	
	\$	%	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>								
Current housing costs (selected dwelling)	6.80	1.3	6.70	1.2	21.40	2.8	6.90	1.0
Fuel and power	1.20	0.2	1.10	0.2	1.00	0.2	0.40	0.1
Food and non-alcoholic beverages	8.40	1.5	11.30	1.9	12.20	1.5	5.60	0.6
Alcoholic beverages	2.00	0.3	1.20	0.2	1.60	0.2	0.70	0.1
Tobacco	0.60	—	0.40	—	0.60	—	0.30	—
Clothing and footwear	2.80	0.4	1.10	0.1	5.40	0.8	2.00	0.3
Household furnishings and equipment	6.10	1.0	4.30	0.6	3.90	0.6	2.80	0.4
Household services and operations	2.30	0.4	2.00	0.4	4.70	0.6	1.60	0.2
Medical care and health expenses	1.60	0.2	2.20	0.3	2.40	0.3	1.10	0.1
Transport	5.50	0.9	5.50	0.9	9.00	1.2	3.80	0.5
Recreation	6.00	1.0	6.70	1.2	40.80	4.6	13.30	1.7
Personal care	0.70	0.1	0.40	—	1.80	0.2	0.60	—
Miscellaneous commodities and services	1.20	0.1	10.20	1.6	5.50	0.8	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>17.90</b>	<b>3.6</b>	<b>21.30</b>	<b>3.7</b>	<b>59.10</b>	<b>4.7</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments - principal (selected dwelling)	—	—	—	—	—	—	—	—
Other capital housing costs	17.80	2.7	14.00	2.3	14.60	2.0	9.00	1.4
Superannuation and life insurance	3.20	0.5	2.00	0.3	3.70	0.6	1.70	0.2
<b>Total household expenditure</b>	<b>28.10</b>	<b>3.7</b>	<b>24.30</b>	<b>3.3</b>	<b>54.90</b>	<b>4.3</b>	<b>18.10</b>	<b>2.8</b>
<i>Household characteristics</i>								
Average weekly household income (\$)	14.90		20.70		41.30		16.50	
Average number of persons in the household	0.2		0.2		0.3		0.1	
Average number of employed persons in the household	0.1		0.1		0.1		—	
Estimated number of households in population	4		4		4		2	

—

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 21, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY PRINCIPAL SOURCE OF HOUSEHOLD INCOME, COCOS (KEELING) ISLANDS

Broad expenditure group	Wages and salaries		Government pensions and benefits		All households	
	\$	%	\$	%	\$	%
Average weekly household expenditure						
Current housing costs (selected dwelling)	7.90	1.1	7.70	2.0	6.90	1.0
Fuel and power	0.40	0.1	1.80	0.4	0.40	0.1
Food and non-alcoholic beverages	6.40	0.7	15.00	3.4	5.60	0.6
Alcoholic beverages	0.80	0.1	0.10	-	0.70	0.1
Tobacco	0.30	-	1.40	0.2	0.30	-
Clothing and footwear	2.30	0.3	2.10	0.4	2.00	0.3
Household furnishings and equipment	3.00	0.4	8.80	1.5	2.80	0.4
Household services and operations	1.80	0.2	4.40	0.9	1.60	0.2
Medical care and health expenses	1.20	0.1	2.70	0.4	1.10	0.1
Transport	4.10	0.6	10.30	1.9	3.80	0.5
Recreation	14.80	1.9	12.30	2.3	13.30	1.7
Personal care	0.70	0.1	1.60	0.2	0.60	-
Miscellaneous commodities and services	4.10	0.6	1.30	0.2	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>21.20</b>	<b>0.6</b>	<b>35.70</b>	<b>7.5</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments - principal (selected dwelling)	-	-	-	-	-	-
Other capital housing costs	10.00	1.5	11.70	2.1	9.00	1.4
Superannuation and life insurance	1.80	0.3	1.70	0.3	1.70	0.2
<b>Total household expenditure</b>	<b>20.90</b>	<b>3.2</b>	<b>39.00</b>	<b>7.5</b>	<b>18.10</b>	<b>2.8</b>
Household characteristics						
Average weekly household income (\$)	17.90		54.80		16.50	
Average number of persons in the household	0.1		0.4		0.1	
Average number of employed persons in the household	-		0.2		-	
Estimated number of households in population	4		3		2	

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 22, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY HOUSEHOLD TYPE, COCOS (KEELING) ISLANDS

Broad expenditure group	<i>Married/de facto couple or one parent with child(ren)</i>		<i>All other households</i>		<i>All households</i>	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	13.00	1.9	2.40	0.8	6.90	1.0
Fuel and power	0.80	0.2	0.80	0.1	0.40	0.1
Food and non-alcoholic beverages	6.30	1.1	10.80	1.3	5.60	0.6
Alcoholic beverages	0.90	0.1	1.70	0.2	0.70	0.1
Tobacco	0.20	—	0.60	—	0.30	—
Clothing and footwear	1.80	0.2	3.90	0.6	2.00	0.3
Household furnishings and equipment	4.70	0.8	2.80	0.4	2.80	0.4
Household services and operations	1.80	0.3	3.20	0.4	1.60	0.2
Medical care and health expenses	1.40	0.2	2.00	0.3	1.10	0.1
Transport	5.70	0.9	5.00	0.7	3.80	0.5
Recreation	4.30	0.8	28.70	3.4	13.30	1.7
Personal care	1.00	0.1	0.70	—	0.60	—
Miscellaneous commodities and services	6.00	1.0	4.20	0.6	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>19.30</b>	<b>2.6</b>	<b>39.30</b>	<b>3.0</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments - principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	14.70	2.3	9.10	1.4	9.00	1.4
Superannuation and life insurance	1.70	0.3	3.20	0.5	1.70	0.2
<b>Total household expenditure</b>	<b>24.30</b>	<b>2.2</b>	<b>36.10</b>	<b>2.6</b>	<b>18.10</b>	<b>2.8</b>

### *Household characteristics*

Average weekly household income (\$)	18.60	39.50	16.50
Average number of persons in the household	0.1	0.2	0.1
Average number of employed persons in the household	0.1	0.1	—
Estimated number of households in population	5	4	2

## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 23, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY NUMBER OF USUAL RESIDENTS IN HOUSEHOLD, COCOS (KEELING) ISLANDS

Broad expenditure group	Less than five usual residents		Five or more usual residents		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	4.00	0.7	19.60	2.5	6.90	1.0
Fuel and power	0.70	0.1	1.00	0.2	0.40	0.1
Food and non-alcoholic beverages	5.10	0.9	13.60	1.6	5.60	0.6
Alcoholic beverages	1.30	0.2	0.20	—	0.70	0.1
Tobacco	0.30	—	0.70	0.1	0.30	—
Clothing and footwear	1.80	0.2	4.80	0.6	2.00	0.3
Household furnishings and equipment	3.40	0.5	5.10	0.7	2.80	0.4
Household services and operations	2.20	0.4	3.00	0.3	1.60	0.2
Medical care and health expenses	1.50	0.2	1.60	0.2	1.10	0.1
Transport	5.60	0.9	3.60	0.5	3.80	0.5
Recreation	4.20	0.7	37.40	4.3	13.30	1.7
Personal care	0.80	0.1	0.90	0.1	0.60	—
Miscellaneous commodities and services	2.10	0.3	10.30	1.4	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>10.60</b>	<b>1.5</b>	<b>53.50</b>	<b>3.7</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments—principal (selected dwelling)		—	—	—	—	—
Other capital housing costs	11.70	1.9	14.00	2.0	9.00	1.4
Superannuation and life insurance	2.10	0.3	2.80	0.3	1.70	0.2
<b>Total household expenditure</b>	<b>16.50</b>	<b>0.9</b>	<b>48.30</b>	<b>3.1</b>	<b>18.10</b>	<b>2.8</b>

### Household characteristics

Average weekly household income (\$)	16.80	49.80	16.50
Average number of persons in the household	0.1	0.2	0.1
Average number of employed persons in the household	—	0.1	—
Estimated number of households in population	5	4	2

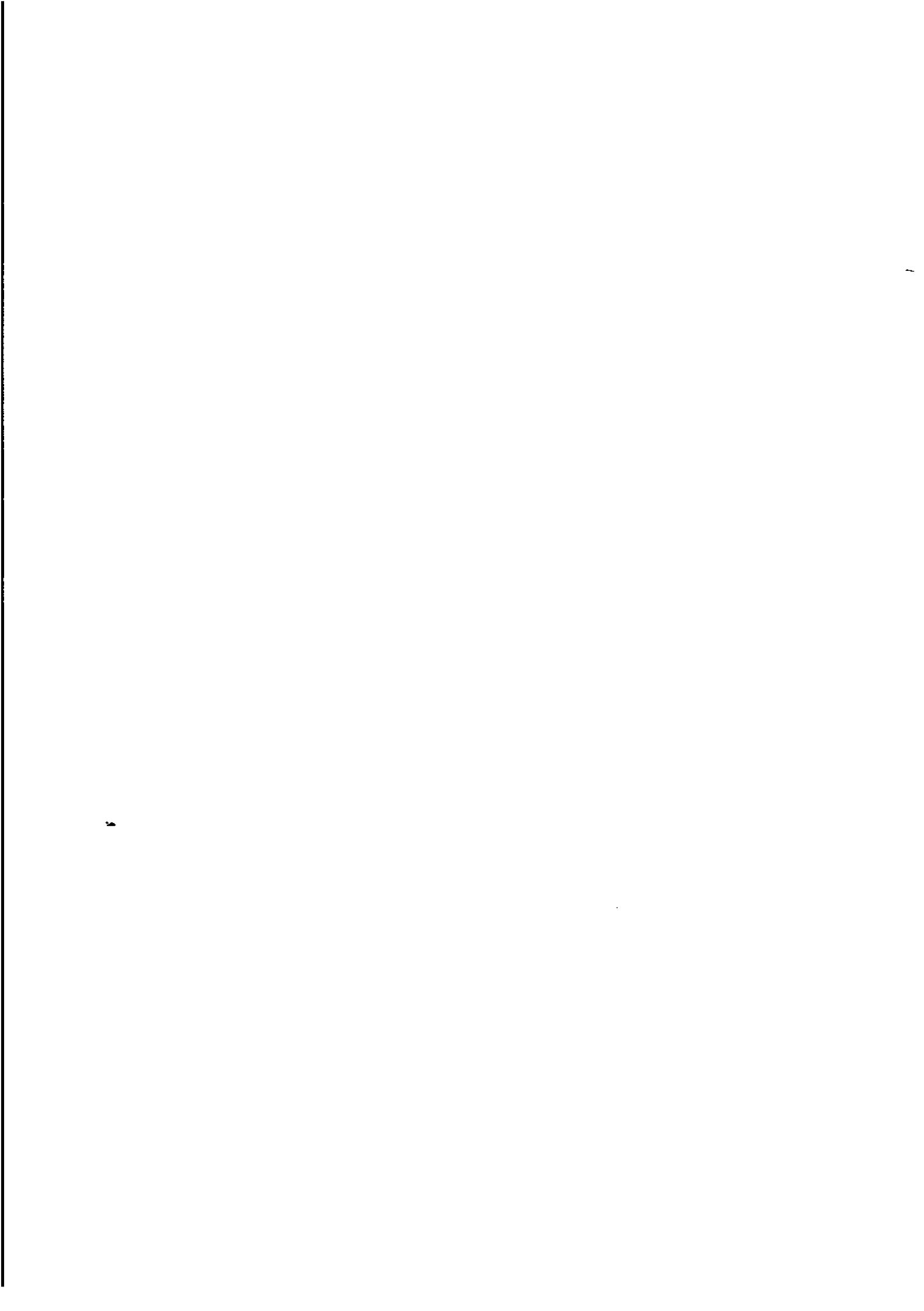
## TECHNICAL NOTES

### STANDARD ERRORS FOR TABLE 24, HOUSEHOLD EXPENDITURE AND CHARACTERISTICS BY WHETHER HOUSEHOLD CAUGHT OR GREW GOODS, COCOS (KEELING) ISLANDS

Broad expenditure group	Household caught or grew goods		Household did not catch or grow goods		All households	
	\$	%	\$	%	\$	%
<i>Average weekly household expenditure</i>						
Current housing costs (selected dwelling)	10.80	1.5	4.00	0.8	6.90	1.0
Fuel and power	0.70	0.1	0.70	0.2	0.40	0.1
Food and non-alcoholic beverages	8.50	1.0	6.60	1.4	5.60	0.6
Alcoholic beverages	0.90	0.1	1.80	0.3	0.70	0.1
Tobacco	0.40	—	0.50	—	0.30	—
Clothing and footwear	1.90	0.2	4.60	0.8	2.00	0.3
Household furnishings and equipment	3.80	0.6	4.10	0.7	2.80	0.4
Household services and operations	2.30	0.3	2.60	0.6	1.60	0.2
Medical care and health expenses	1.40	0.2	2.10	0.3	1.10	0.1
Transport	5.20	0.7	5.20	0.8	3.80	0.5
Recreation	20.40	2.6	5.10	1.1	13.30	1.7
Personal care	0.60	—	1.50	0.2	0.60	—
Miscellaneous commodities and services	5.40	0.8	4.10	0.7	3.60	0.5
<b>Total commodity and service expenditure</b>	<b>30.20</b>	<b>1.5</b>	<b>14.50</b>	<b>4.2</b>	<b>18.40</b>	<b>2.9</b>
Mortgage repayments – principal (selected dwelling)	—	—	—	—	—	—
Other capital housing costs	6.90	1.1	22.40	3.7	9.00	1.4
Superannuation and life insurance	2.20	0.3	3.00	0.5	1.70	0.2
<b>Total household expenditure</b>	<b>27.70</b>	<b>0.5</b>	<b>27.70</b>	<b>3.6</b>	<b>18.10</b>	<b>2.8</b>

### Household characteristics

Average weekly household income (\$)	29.50	31.10	16.50
Average number of persons in the household	0.1	0.2	0.1
Average number of employed persons in the household	0.1	0.1	—
Estimated number of households in population	4	4	2



## **Section 3: Spatial Price Index**



# SPATIAL PRICE INDEX

## INTRODUCTION

A Spatial Price Index (SPI) was constructed to enable costs of goods and services purchased by residents of the Christmas and Cocos (Keeling) Islands to be compared with Perth. An SPI is simply a number, the magnitude of which reflects the relative cost of purchasing an identical fixed basket of goods and services in different locations.

Two different baskets of goods and services were used in the construction of this SPI. One basket was used to compare the costs between Christmas Island and Perth, and a different basket was used to compare the costs between the Cocos (Keeling) Islands and Perth.

Due to the different cultures and lifestyles on the Islands compared with Perth, Island residents spend their money differently to Perth residents. Therefore, for a particular basket of goods and services, two separate expenditure patterns were used in compiling the SPI – one pattern corresponding to Perth expenditure, and one corresponding to the Island expenditure. Each expenditure pattern provides a useful insight into the relative costs of goods and services and neither is more conceptually correct than the other. The comparisons below include the use of both expenditure patterns.

For more detail on the construction of the SPI see Explanatory and technical notes on page 116.

## MAIN FEATURES

Table 33 shows the SPI numbers for both the Christmas and Cocos (Keeling) Islands using the different baskets and expenditure patterns for each location. This table shows the difference in costs between the Islands and Perth.

The cost comparisons which are shown in Tables 34 and 36 reflect what the cost to Perth residents would be if they transferred their expenditure pattern to the Islands. Similarly, Tables 35 and 37 reflect what the cost to Island residents would be if they transferred their expenditure pattern to Perth. The methodology used to derive these tables does not take into account any adjustments that residents might make in their spending habits if they were to move from one location to the other.

### Christmas Island

Table 33 shows that using the Christmas Island expenditure pattern, the cost of purchasing a fixed basket of goods and services was 1.2% lower on Christmas Island than in Perth (as the Index number is 98.8). However, using the Perth expenditure pattern, the cost was almost 10% higher on Christmas Island.

Table 34 shows that the cost of purchasing the fixed basket of goods and services on Christmas Island, using the Perth expenditure pattern, was \$607.90. In Perth, the corresponding cost was \$552.90. There were three main contributors to differences in the costs across the groups of items within the basket.

- The cost of the food group was \$152.60 on Christmas Island (corresponding to 25.1% of the total cost) compared with \$109.00 in Perth (corresponding to 19.7% of the total cost). Table 33 shows that the corresponding Index number for the food group is 140.0. Hence, for every \$100 spent on food in Perth, the same basket of food would cost \$140 on Christmas Island.
- The cost of the household equipment and operation group was \$142.50 on Christmas Island compared with \$111.40 in Perth (corresponding to 23.4% and 20.1% of the total cost respectively). The corresponding Index number for this group is 127.9. Hence, this group was 27.9% more expensive on Christmas Island than in Perth.

## SPATIAL PRICE INDEX

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- The cost of the tobacco and alcohol group was \$19.50 on Christmas Island compared with \$28.90 in Perth (corresponding to 3.2% and 5.2% of the total cost respectively). Table 33 shows that the Index number for tobacco and alcohol is 67.5.

Table 35 shows that the cost of purchasing the fixed basket of goods and services on Christmas Island, using the Christmas Island expenditure pattern, was \$581.40. In Perth, the corresponding cost was \$588.00. As explained above, the cost on Christmas Island was 1.2% lower than that in Perth.

Of the total cost of the basket of goods and services on Christmas Island (\$581.40), food accounted for 39.3%. However, if meals out and take-away food are excluded, then food would only account for 23.6% of the total cost. This is much closer to the proportion of the total cost which is attributable to food using the Perth expenditure pattern (25.1% from Table 34).

Table 33 shows that regardless of the expenditure pattern being used, all of the food subgroups (excluding meals out and take-away food) were much more expensive on Christmas Island than in Perth. The most expensive food subgroups on Christmas Island were dairy products and fresh fruit and vegetables.

Table 34 shows that, using the Perth expenditure pattern, the cost of the clothing group in Perth was \$28.30 (accounting for 5.1% of the total cost). In comparison, Table 35 shows that, using the Christmas Island expenditure pattern, the cost of this group on Christmas Island accounted for only 2.9% of the total cost. However, using the same expenditure pattern, the proportions are similar between the two locations.

Tables 33 shows that housing in Perth cost more than on Christmas Island. The Index number for housing is 68.4 using Christmas Island expenditure patterns and 87.0 using Perth expenditure patterns. Table 35 shows that on Christmas Island, the proportion of the total cost attributable to housing was 6.5% compared with 14.6% in Perth (Table 34). This was mainly due to the small proportion of residents paying mortgages on Christmas Island in comparison with Perth. Another contributing factor was the proportion of households who were living rent free at the time of the Survey (12.5% on Christmas Island compared with 2.5% in Perth). For further information, see Detailed comparison of expenditure patterns on page 51.

The cost of the household equipment and operation group accounted for 20.1% of the total cost in Perth (Table 34) compared with 14.1% on Christmas Island (Table 35). The cost of items in the household equipment and operation group was higher on Christmas Island than in Perth, the main contributors being fuel and light, furniture and floor coverings and appliances.

Table 33 shows that the Index number for transportation for Christmas Island is only slightly lower than that for Perth, regardless of the expenditure pattern used. Table 34 shows that, using the Perth expenditure pattern, the cost of transportation in Perth was \$90.70, accounting for 16.4% of the total cost for all goods and services.

In comparison, using the Christmas Island expenditure pattern, the cost of transportation on Christmas Island was \$53.60 (Table 35). This accounts for only 9.2% of the total cost. As there was no public transport on Christmas Island, the group only includes private motoring costs (it excludes public transport costs in both locations).

## SPATIAL PRICE INDEX

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The cost of tobacco and alcohol was much lower on Christmas Island than in Perth. Table 33 shows that the Index number is 63.8 using the Christmas Island expenditure pattern and 67.5 using the Perth expenditure pattern. The reason for the lower cost is that both tobacco and alcohol are duty free, and alcohol is also sales tax exempt on Christmas Island. Table 34 shows that the cost of tobacco and alcohol accounted for 5.2% of the total cost in Perth, while Table 35 shows that it accounted for 6.7% of the total cost on Christmas Island.

The Index number for the group health and personal care was 95.3 using the Christmas Island expenditure pattern and 98.1 using the Perth expenditure pattern. The proportion of the total cost attributable to this group was similar in both locations, regardless of the expenditure pattern used.

Table 33 shows that the Index number for recreation and education for Christmas Island is 95.1 using the Christmas Island expenditure pattern, and 101.5 using the Perth expenditure pattern. Table 34 shows that 12.0% of the total cost of all goods and services in Perth was attributable to recreation and education. Table 35 shows that the corresponding proportion of the total cost was 16.0% on Christmas Island. This difference can mainly be attributed to the cost of holiday travel and accommodation, and education and childcare fees.

### Cocos (Keeling) Islands

Table 33 shows that using either the Cocos (Keeling) Islands or the Perth expenditure pattern, the cost of purchasing a fixed basket of goods and services was just over 20% higher on the Cocos (Keeling) Islands than in Perth (as the Index numbers are 120.5 and 121.0 respectively). From Table 36, the cost of purchasing the fixed basket of goods and services on the Cocos (Keeling) Islands was \$654.90. In Perth, the corresponding cost was \$540.20. There were three main contributors to this difference:

- The cost of the food group was \$182.00 on the Cocos (Keeling) Islands compared with \$109.00 in Perth. On the Cocos (Keeling) Islands, this represented 27.8% of the total cost, while in Perth, it represented 20.2% of the total cost.
- The cost of the housing group was approximately \$20.00 more on the Cocos (Keeling) Islands than in Perth (\$101.10 compared with \$80.70). This represented approximately 15% of the total cost in both locations.
- The cost of the household equipment and operation group was \$135.00 on the Cocos (Keeling) Islands and \$111.40 in Perth (both accounting for 20.6% of total expenditure).

Table 37 shows that the cost of purchasing the fixed basket of goods and services on the Cocos (Keeling) Islands, using the Cocos (Keeling) Islands expenditure pattern, was \$538.60. In Perth, the corresponding cost was \$447.10. As explained above, the cost on the Cocos (Keeling) Islands was around 20% higher than that in Perth.

Comparisons between the Cocos (Keeling) Islands and Perth expenditure patterns shows that 20.2% of the total cost of the fixed basket of goods and services was attributable to food in Perth (Table 36). Table 37 shows that the corresponding figure for the Cocos (Keeling) Islands was 28.6%.

The difference in these proportions is mainly due to all of the food subgroups being more expensive on the Cocos (Keeling) Islands. Dairy products, fresh fruit and vegetables and processed fruit and vegetables cost at least twice as much on the Cocos (Keeling) Islands as in Perth.

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The Index numbers in Table 33 show that the cost of clothing on the Cocos (Keeling) Islands was approximately 10% more than in Perth, regardless of the expenditure pattern being used. However, using the Perth expenditure pattern, Table 36 shows that the proportion of the total cost of all goods and services attributable to clothing in Perth was 5.2%. This compares with only 2.5% (Table 37) on the Cocos (Keeling) Islands using the Cocos (Keeling) Islands expenditure pattern.

Based on Perth expenditure patterns, housing accounted for 14.9% of the total cost in Perth (Table 36). However, using Cocos (Keeling) Islands expenditure patterns, housing accounted for 19.6% of total expenditure on the Cocos (Keeling) Islands (Table 37). The main reason for this difference was the higher cost of rent on the Cocos (Keeling) Islands (around 20% higher than in Perth).

The cost of the household equipment and operation group accounted for 20.6% of the total cost in Perth compared with 21.5% on the Cocos (Keeling) Islands (Tables 36 and 37 respectively). Although this does not represent a large difference, the cost of items in this group was much higher on the Cocos (Keeling) Islands than in Perth. This was mainly due to the cost of fuel and light, and household supplies and services.

Table 33 shows that the Index number for transportation for the Cocos (Keeling) Islands is lower than that for Perth, regardless of the expenditure pattern used. Table 36 shows that, using the Perth expenditure pattern, the cost of transportation in Perth was \$90.70, accounting for 16.8% of the total cost for all goods and services. In comparison, using the Cocos (Keeling) Islands expenditure pattern, the cost of transportation on the Cocos (Keeling) Islands was \$38.40 (Table 37), accounting for only 7.1% of the total cost. One of the contributing factors to this difference was that only one third of households reported paying vehicle registration at the time of the SIS. As there was no public transport on the Cocos (Keeling) Islands, the group only includes private motoring costs (it excludes public transport costs in both locations).

The cost of tobacco and alcohol was approximately 20% lower on the Cocos (Keeling) Islands than in Perth (Table 33). The reason for this is that tobacco and alcohol are duty free (alcohol is also sales tax exempt) on the Islands. The proportion of the total cost of the fixed basket of goods and services attributable to tobacco and alcohol was 5.3% in Perth (Table 36) and 2.4% on the Cocos (Keeling) Islands (Table 37). In addition to tobacco and alcohol being cheaper on the Islands, residents of Home Island did not report purchasing alcohol in the SIS.

The Index number for the group health and personal care was 105.4 using the Cocos (Keeling) Islands expenditure pattern and 108.2 using the Perth expenditure pattern. The proportion of the total cost attributable to this group was 6.1% in Perth (Table 36) and 4.3% on the Cocos (Keeling) Islands (Table 37). The group health and personal care excluded the subgroup hairdressing services as there were no hairdressing services on the Islands.

Recreation and education accounted for a greater proportion of the total cost of the fixed basket of goods and services on the Islands than in Perth. On the Islands, the proportion was 13.9% (Table 37) and in Perth it was 10.8% (Table 36). The main reason for this was that a greater proportion of the Cocos (Keeling) Island household expenditure was attributable to holiday travel and accommodation in the SIS. This group excludes childcare services as no prices could be obtained.

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SPATIAL PRICE INDEX, PERTH=100.0

Group, sub-group	Christmas Island basket		Cocos (Keeling) Islands basket	
	Christmas Island Expenditure Pattern <sup>1</sup>	Perth Expenditure Pattern <sup>2</sup>	Cocos (Keeling) Islands Expenditure Pattern <sup>1</sup>	Perth Expenditure Pattern <sup>2</sup>
Food	115.9	140.0	174.4	167.0
Dairy products	168.2	218.6	220.0	222.1
Cereal products	140.6	140.7	178.4	172.9
Meat and Seafood	111.9	123.8	175.2	162.8
Fresh fruit and vegetables	222.3	228.6	239.8	244.8
Processed fruit and vegetables	144.6	147.8	190.3	197.8
Soft drinks and cordials	109.1	109.2	141.7	143.0
Meals out and take away foods	94.0	108.4	124.4	122.3
Other foods	140.4	141.3	179.2	184.1
Clothing	101.2	101.1	113.3	109.5
Housing	68.4	87.0	125.7	125.3
Household Equipment and Operation	114.2	127.9	106.1	121.2
Fuel and light	96.9	144.4	121.1	143.7
Furniture and floor coverings	161.5	174.3	112.0	109.9
Appliances	127.2	128.3	86.6	86.8
Household supplies and services	112.4	111.9	172.7	146.8
Postal and telephone services	100.0	100.0	100.0	100.0
Other	114.1	115.1	116.7	118.9
Transportation <sup>3</sup>	96.1	99.4	94.8	95.7
Tobacco and Alcohol	63.8	67.5	80.1	79.9
Health and Personal Care	95.3	98.1	105.4	108.2
Recreation and Education	95.1	101.5	110.0	103.6
Books, newspapers and magazines	155.0	153.0	n.a.	n.a.
Recreation goods	95.9	100.0	n.a.	n.a.
Recreation services	89.2	89.8	n.a.	n.a.
Other	94.5	95.2	n.a.	n.a.
<b>All groups</b>	<b>98.8</b>	<b>109.9</b>	<b>122.9</b>	<b>121.0</b>
Food (excluding meals out, etc.)	137.0	151.8	179.8	183.6
All groups (excluding Housing)	102.0	121.8	122.2	120.5

<sup>1</sup> As derived from 1995 Spending and Income Survey

<sup>2</sup> As derived from 1993-94 Household Income and Expenditure Survey for Perth.

<sup>3</sup> Excludes urban transport fares

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## 34 COST COMPARISONS FOR A FIXED BASKET OF GOODS AND SERVICES — BASED ON PERTH EXPENDITURE PATTERN<sup>1</sup>

Group, sub-group	Christmas Island expenditure		Perth expenditure <sup>1</sup>	
	\$	%	\$	%
Food	152.60	25.1	109.00	19.7
Dairy products	18.80	3.1	8.60	1.6
Cereal products	16.60	2.7	11.80	2.1
Meat and seafood	21.30	3.5	17.20	3.1
Fresh fruit and vegetables	24.00	3.9	10.50	1.9
Processed fruit and vegetables	6.80	1.1	4.60	0.8
Soft drinks and cordials	15.50	2.5	14.20	2.6
Meals out and take away foods	32.10	5.3	29.60	5.4
Other foods	17.80	2.9	12.60	2.3
Clothing	28.60	4.7	28.30	5.1
Housing	70.20	11.5	80.70	14.6
Household equipment and operation	142.50	23.4	111.40	20.1
Fuel and light	21.80	3.6	15.10	2.7
Furniture and floor coverings	35.20	5.8	20.20	3.7
Appliances	13.60	2.2	10.60	1.9
Household supplies and services	28.20	4.6	25.20	4.6
Postal and telephone services	13.40	2.2	13.40	2.4
Other	30.50	5.0	26.50	4.8
Transportation <sup>2</sup>	90.20	14.8	90.70	16.4
Tobacco and alcohol	19.50	3.2	28.90	5.2
Health and personal care	36.80	6.1	37.50	6.8
Recreation and education	67.40	11.1	66.40	12.0
Books, newspapers and magazines	10.10	1.7	6.60	1.2
Recreation goods	17.80	2.9	17.80	3.2
Recreation services	11.50	1.9	12.80	2.3
Other	27.90	4.6	29.30	5.3
All groups	607.90	100.0	552.90	100.0

<sup>1</sup> As derived from 1993-94 Household Income and Expenditure Survey for Perth.

<sup>2</sup> Excludes urban transport fares.

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## COST COMPARISONS FOR A FIXED BASKET OF GOODS AND SERVICES - BASED ON CHRISTMAS ISLAND EXPENDITURE PATTERN<sup>1</sup>

Group, sub-group	Christmas Island expenditure		Perth expenditure <sup>1</sup>	
	\$	%	\$	%
Food	228.20	39.3	196.90	33.5
Dairy products	11.10	1.9	6.60	1.1
Cereal products	21.80	3.7	15.50	2.6
Meat and seafood	33.00	5.7	29.50	5.0
Fresh fruit and vegetables	22.90	3.9	10.30	1.8
Processed fruit and vegetables	8.10	1.4	5.60	1.0
Soft drinks and cordials	19.10	3.3	17.50	3.0
Meals out and take away foods	90.90	15.6	96.70	16.4
Other foods	21.20	3.6	15.10	2.6
Clothing	16.90	2.9	16.70	2.8
Housing	37.90	6.5	55.40	9.4
Household equipment and operation	82.20	14.1	72.00	12.2
Fuel and light	12.40	2.1	12.80	2.2
Furniture and floor coverings	10.50	1.8	6.50	1.1
Appliances	10.30	1.8	8.10	1.4
Household supplies and services	20.00	3.4	17.80	3.0
Postal and telephone services	12.70	2.2	12.70	2.2
Other	16.20	2.8	14.20	2.4
Transportation <sup>2</sup>	53.60	9.2	55.80	9.5
Tobacco and alcohol	39.10	6.7	61.30	10.4
Health and personal care	30.30	5.2	31.80	5.4
Recreation and education	93.30	16.0	98.10	16.7
Books, newspapers and magazines	3.10	0.5	2.00	0.3
Recreation goods	23.10	4.0	24.10	4.1
Recreation services	15.70	2.7	17.60	3.0
Other	51.40	8.8	54.40	9.2
All groups	581.40	100.0	588.00	100.0

<sup>1</sup> As derived from 1995 Spending and Income Survey.  
<sup>2</sup> Excludes urban transport fares

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## COST COMPARISONS FOR A FIXED BASKET OF GOODS AND SERVICES — BASED ON PERTH EXPENDITURE PATTERN<sup>1</sup>

Group, sub-group	Cocos (Keeling) Islands expenditure		Perth expenditure <sup>1</sup>	
	\$	%	\$	%
Food	182.00	27.8	109.00	20.2
Dairy products	19.10	2.9	8.60	1.6
Cereal products	20.40	3.1	11.80	2.2
Meat and seafood	28.00	4.3	17.20	3.2
Fresh fruit and vegetables	25.70	3.9	10.50	1.9
Processed fruit and vegetables	9.10	1.4	4.60	0.9
Soft drinks and cordials	20.30	3.1	14.20	2.6
Meals out and take away foods	36.20	5.5	29.60	5.5
Other foods	23.20	3.5	12.60	2.3
Clothing	31.00	4.7	28.30	5.2
Housing	101.10	15.4	80.70	14.9
Household equipment and operation	135.00	20.6	111.40	20.6
Fuel and light	21.70	3.3	15.10	2.8
Furniture and floor coverings	22.20	3.4	20.20	3.7
Appliances	9.20	1.4	10.60	2.0
Household supplies and services	37.00	5.6	25.20	4.7
Postal and telephone services	13.40	2.0	13.40	2.5
Other	31.50	4.8	26.50	4.9
Transportation <sup>2</sup>	86.80	13.3	90.70	16.8
Tobacco and alcohol	23.10	3.5	28.90	5.3
Health and personal care <sup>3</sup>	35.80	5.5	33.10	6.1
Recreation and education <sup>4</sup>	60.20	9.2	58.10	10.8
<b>All groups</b>	<b>654.90</b>	<b>100.0</b>	<b>540.20</b>	<b>100.0</b>

<sup>1</sup> As derived from 1993-94 Household Income and Expenditure Survey for Perth

<sup>2</sup> Excludes urban transport fares

<sup>3</sup> Excludes hairdressing services.

<sup>4</sup> Excludes childcare services.

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## COST COMPARISONS FOR A FIXED BASKET OF GOODS AND SERVICES - BASED ON COCOS (KEELING) ISLANDS EXPENDITURE PATTERN<sup>1</sup>

Group, sub-group	Cocos (Keeling) Islands expenditure		Perth expenditure <sup>2</sup>	
	\$	%	\$	%
Food	154.20	28.6	88.40	20.2
Dairy products	7.70	1.4	3.50	0.8
Cereal products	20.70	3.8	11.60	2.6
Meat and seafood	20.50	3.8	11.70	2.7
Fresh fruit and vegetables	27.10	5.0	11.30	2.6
Processed fruit and vegetables	11.80	2.2	6.20	1.4
Soft drinks and cordials	28.20	5.2	19.90	4.6
Meals out and take away foods	10.70	2.0	8.60	2.0
Other foods	27.80	5.1	15.40	3.5
Clothing	13.60	2.5	12.00	2.7
Housing	105.70	19.6	84.10	19.2
Household equipment and operation	115.90	21.5	107.00	24.4
Fuel and light	27.00	5.0	22.30	5.1
Furniture and floor coverings	18.70	3.5	16.70	3.8
Appliances	16.20	3.0	18.70	4.3
Household supplies and services	15.20	2.8	11.00	2.5
Postal and telephone services	27.50	5.1	27.50	6.3
Other	11.20	2.1	10.90	2.5
Transportation <sup>3</sup>	38.40	7.1	40.50	9.2
Tobacco and alcohol	12.90	2.4	16.10	3.7
Health and personal care <sup>4</sup>	23.30	4.3	22.10	5.0
Recreation and education <sup>4</sup>	75.00	13.9	68.20	15.5
<b>All groups</b>	<b>538.60</b>	<b>100.0</b>	<b>438.40</b>	<b>100.0</b>

<sup>1</sup> As derived from 1995 Spending and Income Survey

<sup>2</sup> Excludes urban transport fares

<sup>3</sup> Excludes hairdressing services

<sup>4</sup> Excludes childcare services.

# SPATIAL PRICE INDEX

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## EXPLANATORY AND TECHNICAL NOTES

The following discusses in detail the methodology used in constructing the Spatial Price Index (SPI) and also provides information about the calculation of the cost comparison tables, which were constructed to show the distribution of expenditure across different groups of items.

Spatial Price Index An SPI is constructed using the following elements:

- a basket of goods and services which is representative of spending habits in the locations being compared;
- prices of items in the basket for each of the locations being compared; and
- expenditure (or weighting) patterns for each of the locations being compared.

Target population The target population for the SPI was all households included in the scope of the Household Income and Expenditure Survey (HIES) for Perth and all households included in the scope of the Spending and Income Survey (SIS) for the Islands.

Baskets Ideally price comparisons should be based on a basket of goods and services which is representative of spending habits in each of the locations being compared. Therefore, two separate baskets of goods and services were developed – one to compare Christmas Island with Perth and the other to compare the Cocos (Keeling) Islands with Perth.

As a starting point, the baskets were based on that used for the Consumer Price Index (CPI) in Perth. They were then adapted to contain those items which were able to be priced in both of the locations being compared. Although there are some similarities between the two baskets (e.g. the items priced for the subgroup health services were identical in both baskets), most of the goods and services priced were different. Consequently, it is not valid to make comparisons between the price indexes for Christmas Island and the Cocos (Keeling) Islands.

Expenditure patterns Differences in expenditure patterns between locations may reflect differences in both price levels and the quantities of goods and services purchased. The expenditure patterns for each of the Islands (as reported in the SIS) are different from each other as well as different from the Perth expenditure pattern (as derived from the 1993-94 HIES). This is mainly due to different cultures and lifestyles on the Islands in comparison with Perth.

Each expenditure pattern provides a useful insight into the relative costs of goods and services and neither is more conceptually correct than the other. As the two series of Index numbers for each of the Islands are based on different expenditure patterns, comparisons should not be made between them and they should be treated as two completely unrelated sets of Indexes.

An example of the problems that can arise if comparisons are made between the two Index series is highlighted by looking at the subgroup meals out and take-away foods. The Index series based on the Perth expenditure pattern shows that for every \$100 spent on meals out and take-away foods in Perth, the same food would cost \$108.40 on Christmas Island (Index value of 108.4, Table 33). Using the Christmas Island expenditure pattern gives the opposite impression. That is, that meals out and take-away foods cost less on Christmas Island than they did in Perth (Index value of 94.0). This effect is entirely due to the difference in the expenditure patterns between Christmas Island and Perth.

## **SPATIAL PRICE INDEX**

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**Prices** Prices for the items of goods and services were obtained from representative retail and service outlets on the Islands and in the Perth Metropolitan Area during August and September 1995.

Where there was no expenditure reported on the Islands for a particular subgroup, the expenditure was also assumed to be zero in Perth. For example, as there is no public transport on the Islands, there was no expenditure reported for items in the subgroup urban transport fares. Therefore, for the purposes of constructing the Index, expenditure on public transport was assumed to be zero in Perth.

In some cases, it was not possible to price the same goods and services in both locations. In such cases, where goods of a similar quality were available, the price of these items were substituted. For example, fresh chicken was in the Perth basket of goods and services, however most of the chicken available on the Islands was frozen. As the quality of the frozen chicken was considered to be comparable to fresh chicken, the price of frozen chicken was used for the Islands.

Although the majority of prices were collected during September 1995, some supplementary prices were obtained from various stores and agencies at later dates. This was necessary because of the need for more information in some of the subgroups. These prices have been adjusted to reflect what they would have been in September 1995.

Prices were collected from as many stores (and/or agencies) as possible, and some prices were also obtained from mail order catalogues (as Island residents often purchase goods in this way). Some subgroups had a limited range of goods because many of the goods that were available on the Islands had been brought in from other countries. These goods were not available in Perth, and hence could not be priced.

A problem with some of the non-perishable goods on the Islands was that they were often quite old and were often no longer available in Perth. This was particularly the case with hardware goods. Because these items had been replaced in Perth with more up to date models, it was often difficult to compare the quality of the new and old models. Where the difference in the quality of the two products was significant, the item was deleted from the relevant basket. Otherwise, the goods were assumed to be comparable and were therefore included.

Prices of items in the basket of goods and services that were collected *on* the Islands were net of duty and sales tax, however, prices of items obtained *off* the Islands (e.g. through mail order catalogues) included duty and/or sales tax. Where it was known that Islanders sought a rebate, then the gross price less the rebate was included in the Index.

The Joint Standing Committee recommended that costs relating to freight be reported separately. However, it was not possible to do this because of conceptual and operational difficulties. All the prices included in the Indexes are therefore inclusive of freight costs (for further information, see Treatment of freight on page 76).

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Index series	<p>Two SPI series have been constructed using:</p> <ul style="list-style-type: none"><li>▪ Perth expenditure patterns as derived from the 1993-94 HIES; and</li><li>▪ Island expenditure patterns as derived from the 1995 SIS.</li></ul> <p>Appendix B provides details of the different expenditure patterns which were used to construct the Index series.</p> <p>Each Index is divided into eight groups: food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care, and recreation and education. Each of these groups is then divided into a number of subgroups which are further divided into expenditure classes (for further information, see Appendix B). The groups, subgroups and expenditure classes used for the construction of the Index were derived from the commodity codes used for the HIES. Consistent with the CPI methodology, various HIES commodity codes (e.g. 702 Jewellery) were excluded from the Index due to problems in pricing items of constant quality.</p>
Calculation of the Index	<p>Price indexes were constructed in four steps. The first was to choose a basket of goods and services to be priced for each set of indexes. The second was to calculate the geometric mean of the prices for each item in the basket. The third was to use these mean prices to calculate item specific price relatives. The fourth was to use these price relatives to calculate expenditure class level index numbers.</p>
Geometric mean	<p>The geometric mean of the prices collected from different stores was calculated for each item in each expenditure class to give the average price of the item.</p> <p>The formula for calculating the geometric mean is:</p> $\text{Geometric mean} = (x_1 \times x_2 \times \dots \times x_n)^{1/n}$ <p>where <math>x_1</math>=price of item in location 1, <math>x_2</math>=price of item in location 2, ... <math>x_n</math>=price of item in location n, n = number of locations from which prices were collected.</p>
Price relative	<p>The price relative is the ratio of the price in one location to the price in another location. That is,</p> $\text{Price relative} = \frac{\text{price in location 1}}{\text{price in location 2}}$ <p>The calculation of the Index numbers involves the use of geometric means, price relatives and expenditure patterns. The following example shows how this was done.</p> <p>Firstly, the geometric mean of prices obtained from different stores was calculated for all items in the basket of goods and services, for each location. Then, the price relative between the two locations was calculated. For example, as shown in the following table, the geometric mean for 1kg of Brand C breakfast cereal on Christmas Island was \$4.50 and in Perth it was \$4.00. Therefore, the price relative is 1.12 (i.e. \$4.50/\$4.00).</p> <p>Once the price relatives for all of the items included in the expenditure class breakfast cereals were calculated (i.e., Brands A, B, C and D breakfast cereals) the geometric mean of these price relatives was calculated. This is shown in the table as the geometric mean of the price relatives for breakfast cereals.</p>

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Geometric mean of price relatives for breakfast cereals

$$= (1.60 \times 1.73 \times 1.64 \times 2.16 \times 1.12 \times 1.99)^{1/6}$$

$$= 1.67$$

Expenditure class	Geometric mean			Geometric mean of price relatives
	Christmas Island (\$)	Perth (\$)	Price relative	
<b>Breakfast cereals</b>				<b>1.67</b>
Brand A	550g	5.50	3.43	1.60
	275g	3.85	2.23	1.73
Brand B	750g	4.76	2.90	1.64
	375g	4.00	1.85	2.16
Brand C	1kg	4.50	4.00	1.12
Brand D	250g	2.70	1.36	1.99

After the geometric mean of price relatives for each of the expenditure classes in a particular subgroup was calculated, it was then multiplied by the corresponding weight for the expenditure class and aggregated to give an Index number for the subgroup. These subgroup Index numbers were multiplied by the corresponding weight for the subgroup and aggregated to give an Index for the group. Similarly, the Index number for each group was multiplied by the corresponding group weight and aggregated to give an Index number for all groups. For further information on price index construction, see *A Guide to the Consumer Price Index* (ABS Cat. No. 6440.0).

The Index numbers show the cost of purchasing a fixed basket of goods and services on each of the Islands in comparison with Perth. For the purposes of the comparison, Perth is used as the base for the Index series, and is therefore equal to 100.0. So, an Index number of, say, 120.0 on Christmas Island would mean that for every \$100 spent in Perth, the cost of the same basket of goods and services would be \$120 on Christmas Island.

### Calculation of the cost comparisons

The cost comparisons which are shown in Tables 34 to 37 reflect what the cost to Perth residents would be if they transferred their expenditure pattern to the Islands and what the cost to Island residents would be if they transferred their expenditure pattern to Perth. The cost comparisons were calculated by multiplying the prices that were collected in one location by the price relative between the two locations.

It should be noted that the methodology used to derive these tables does not take into account any adjustments that residents might make in their spending habits if they were to move from one location to the other.

## SPATIAL PRICE INDEX

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Collection methodology	The following provides a detailed explanation of how prices were collected and about problems that were experienced with constructing different parts of the Index series.
Food	Construction of the food Index numbers was relatively straightforward. Prices were obtained for food items that were available on the Islands at the time of the Survey. Food which was priced on the Islands, but was not available in Perth was excluded from the Index.
Clothing	Pricing of clothing was difficult on the Islands as there was very little clothing available at the time of the Survey. Anecdotal evidence has shown that most residents purchase clothing while on holidays elsewhere in Australia, or overseas in places such as Singapore. For this reason much of the clothing that was included in the Index was priced in Perth and assumed to have a price relative of 1.0 (i.e. residents on the Islands pay the same price as residents in Perth).  The main items in the clothing group which were available to be priced on the Islands as well as in Perth were footwear, fabrics and knitting wool and underwear.
Housing	Expenditure relating to off-Island housing was excluded from the Indexes. There were a number of reasons for this, including tax implications. <ul style="list-style-type: none"><li>▪ <i>Rents</i> – When compiling an SPI, the preferred practice is to price the same item in both locations. However, for rental dwellings, this presented particular difficulties because the quality of housing on the Islands was believed to be considerably different from the quality in Perth. The ABS selected 'comparable' dwellings in Perth on the basis of the number of bedrooms in the dwelling.  It was assumed that all rents paid by Christmas and Cocos (Keeling) Island residents were equivalent to the rents paid by Homeswest tenants in Perth (i.e. government owned dwelling rents). This was certainly the case on the Cocos (Keeling) Islands. On Christmas Island there was a small proportion of residents renting privately. However, the majority of renters were living in government or subsidised rental accommodation, and it was not possible to accurately identify what proportion of households paying rent were in privately owned dwellings.</li></ul> To calculate the rent figure for the Islands, the amount of rent paid per week was averaged for those households who reported paying rent in the SIS (net of refunds obtained from employers, etc.).  In Perth, the rent payable by tenants living in government rental accommodation is based on the tenants' annual income. To calculate the average annual income at the time of the Survey, the 1991 Population Census was used to obtain the average annual income for all persons in Perth who were living in Housing Commission dwellings. This figure was then inflated using the Average Weekly Earnings (ABS Cat. No. 6302.0) series to calculate an equivalent figure relating to September 1995. Using this figure, it was then possible to calculate the amount of rent that would be paid by persons receiving this average annual income.

## SPATIAL PRICE INDEX

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- *Mortgage interest charges* – Mortgage interest rate charges represent the cost to households of financing owner-occupied housing. The two factors affecting mortgage interest charges are relative house prices and relative mortgage interest rates.

On Christmas Island, the main difficulty with this part of the Index was estimating the average value of privately owned dwellings on the Island. Information from the SIS group questionnaire was used to assist in this estimation. Respondents who either owned their own homes or were in the process of purchasing their dwelling were asked to estimate the sale price of their dwelling if they were to sell it tomorrow. This information was used to estimate a weighted average house value on the Island. Discussions with the Valuer Generals Office confirmed that the estimates given by the residents were in line with prices paid at recent house sales on the Island.

For Perth, it was not possible to obtain an average price of houses, so instead, a median house price for September 1995 was obtained from the Real Estate Institute of Western Australia (REIWA). For ease of calculation, the bank mortgage variable interest rate charged by various banks at the time of the Survey was used to calculate the mortgage interest charges.

For the Cocos (Keeling) Islands it was not necessary to calculate mortgage interest charges as all residents were either paying rent or living rent free at the time of the Survey. There was no private ownership of dwellings.

- *Local government rates and charges* – The amount paid for local government rates and charges on Christmas Island was obtained from information provided in the SIS. As with mortgage interest rate charges, there were no local government rates and charges paid by residents of the Cocos (Keeling) Islands. An estimate of the average local government rates and charges for Perth was obtained from the CPI.
- *House Repairs and Maintenance* – Most of the items in this group were hardware goods. This included goods such as: paint, nails, doorlocks, PVC piping, wood products and cement. The make-up of this part of the index was influenced by those goods that were available for pricing on both the Islands and in Perth.
- *House insurance* – As with rents, the value of housing and contents insurance on the Islands was very difficult to compare with Perth. For this reason the price relative was calculated by comparing the average amount paid by residents on the Islands with the average amount paid by residents in Perth (for those households who reported paying house and contents insurance in the SIS).

### Household equipment and operation

- *Fuel and light* – The cost of electricity on the Islands was priced at a subsidised rate. The amount reported by residents in the SIS was converted into a subsidised amount by subtracting the amount which was refunded or charged to a business from the amount paid. A per unit cost was obtained by dividing this amount by the number of units of electricity that householders reported paying for. For Perth the normal per cost of electricity was included in the Index.

Many of the dwellings on the Islands use bottled gas. Price comparisons were made for a 40 kg gas bottle. No prices were collected for other fuels.

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- *Furniture and floor coverings* – Very little furniture and floor coverings were priced on the Islands. For Christmas Island, standard furniture items such as beds, wall units and wardrobes were priced at large furniture retailers in Perth and then a component for freight costs was added to the price. This was considered to be an appropriate methodology as most of the furniture on the Island is ordered from catalogues through on-Island agents or directly from shops when the residents are on holidays. For this reason, it was assumed that the residents on the Islands paid the same price as Perth residents for furniture and floor coverings, with the only difference being the cost of freight.

Anecdotal evidence has shown that much of the furniture bought by residents of the Cocos (Keeling) Islands is ordered in from overseas. As it was not possible to price these goods in Perth, furniture that had been brought to the Islands by Perth retailers was the only furniture that was priced. This included a selection of wall units and a bed.

There was very little available in the way of floor coverings on either the Christmas or Cocos (Keeling) Islands.

- *Appliances* – This subgroup included a large variety of goods. There were some difficulties with the goods priced on the Islands as many of the models were from Singapore and other countries. For the majority of these models, it was relatively easy to establish an equivalent Australian model to price. However, as with other parts of the Index, some of the models were old and no longer available in Perth. Nevertheless, the range of goods was sufficient to give an accurate assessment of the price relative between Perth and the Islands.
- *Household textiles* – This group includes items such as: bedding, towels, linen and curtains. Although a range of prices for these items were obtained on the Islands, many of the brands and styles were no longer available in Perth. Therefore, the actual list of goods included in this subgroup was reduced substantially from the original list of items available on the Islands.

As many of the residents order these goods through catalogues, direct order retailers and/or purchase these goods while in Perth, or elsewhere, prices of catalogue direct order items have been included in this group. A price relative of 1 was assumed for these items.

- *Tableware, glassware and cutlery* – Very few prices were obtained for this expenditure class on both the Islands. There was very little available in the stores during the price collection and it appears that residents order these items through on-Island agencies or buy them while on holidays. Some of the items that were available on the Cocos (Keeling) Islands were not available in Perth.
- *Kitchen and cooking utensils* – On Christmas Island, a few basic items such as measuring cups, baking dishes and casserole dishes were priced for this expenditure class. On the Cocos (Keeling) Islands, the list of goods was more comprehensive, also including a number of knives and other kitchen utensils.

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- *Household supplies and services* – With the exception of the expenditure classes veterinary services, travel goods and repairs to appliances, the list of goods and services included in this subgroup was fairly comprehensive.

There are no veterinary services on the Islands (unless there happen to be animals in quarantine) and there are very few domestic animals on the Islands. Anecdotal evidence has suggested that repairs to appliances are generally done by residents on an ad-hoc basis. There were no private contracting businesses on the Islands at the time of the SIS, and hence, information about hourly labour rates could not be obtained.

- *Postal and telephone services* – Almost all postal and telephone charges (domestic and international) on the Islands are the same as in Perth.
- *Consumer credit charges* – For the purposes of the Index, consumer credit charges have been assumed to be the same between Perth and the Islands. Many of the residents who had personal loans at the time of the SIS used the same banks as Perth residents, or had organised a private loan. Credit cards used by the residents were the same as those used by Perth residents and charges on these cards were the same.

*Transportation* In the CPI, this group consists of private motoring costs and urban transport fares. However, as there was no public transport on the Islands no prices have been included in the Indexes for the urban transport fares subgroup.

Private motoring costs include prices for motor vehicles, automotive fuel, vehicle insurance, motoring charges, tyres and tubes, and vehicle servicing, repairs and parts.

On Christmas Island, prices for motor vehicles included the price of new cars, while on the Cocos (Keeling) Islands it only included the price of new four wheel motorcycles. The reason for this is that four wheel motorcycles are the only motorised vehicles used for private purposes on the Cocos (Keeling) Islands.

The price of an aluminium dinghy has also been included in this subgroup for both the Christmas and Cocos (Keeling) Islands.

### Tobacco and alcohol

There was a comprehensive range of tobacco and alcohol goods available on the Islands. Prices were obtained for all goods included in the CPI.

### Health and personal care

At the time of the SIS, there were no permanent optical services on the Islands. A travelling optometrist visits every six to eight weeks and residents are not charged for optical services (all consultations are bulk billed). For dental services, the net cost has been included in the Indexes (this is the cost for various procedures less the rebate received from health funds). The amount of rebate received by the residents was calculated according to the percentage of residents covered by private health insurance.

Hospital and medical services were treated in the same way as dental services, even though residents on the Islands are bulk billed for all hospital and medical services. For the construction of the Indexes it was assumed that all residents paid the equivalent of the Medicare rebate for hospital and medical services.

Prices for hairdressing services were obtained on Christmas Island, but there was no formal hairdressing service on the Cocos (Keeling) Islands.

## SPATIAL PRICE INDEX

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- Recreation and education*
- *Books, newspaper and magazines* – There was a good range of newspapers and magazines available on Christmas Island at the time of price collection. However, on the Cocos (Keeling) Islands, there were no newspapers or magazines sold. Newspapers are available for loan through the library and magazines are available through subscription services.
  - *Recreational goods* – Prices were available for a large range of video and sound equipment on both the Christmas and Cocos (Keeling) Islands. For the subgroup records, cassettes and tapes, there was very little available on the Cocos (Keeling) Islands during the price collection phase. Compact discs, etc are generally ordered in from Perth and blank cassettes and tapes are usually ordered through an agent on Christmas Island.
- Most of the sports equipment priced on the Islands was fishing gear as fishing is the most common pastime of residents. At the time of price collection, there was a limited selection of toys, games or other sporting equipment on the Islands for pricing.
- *Holiday travel and accommodation* – Only the cost of domestic and international flights was included in this category. It was assumed that the price of accommodation in various destinations, both domestic and international, would be the same for Island residents as for Perth residents.
  - *Recreational services* – The only prices included in this category was for the developing of a 24 print film, and video hire. There were no entertainment facilities on the Islands, such as theatres and cinemas or sporting competitions for which the residents had to pay for.
  - *Education and childcare* – On Christmas Island, school fees were structured in a similar manner to that in Perth public schools. Childcare was provided through the Christmas Island Administration and daily prices for childcare were available.
- On the Cocos (Keeling) Islands there were no annual school fees for primary school students, and there was no formal childcare available.

## **Section 4: Appendices**



## APPENDIX A

COMMODITY CLASSIFICATION	Expenditure is classified according to the Household Expenditure Survey Commodity Classification List (HESCCL). The HESCCL is made up of 424 detailed expenditure items, grouped into 99 medium level groups and 17 broad level groups. This appendix gives an abridged version of the HESCCL.
CURRENT HOUSING COSTS (SELECTED DWELLING)	<p>Rent payments</p> <p>101 Rent payments</p> <p>Mortgage payments – interest</p> <p>102 Mortgage payments – interest component</p> <p>Rate payments</p> <p>103 Water and sewerage rates (selected dwelling)</p> <p>104 General rates (selected dwelling)</p> <p>House and contents insurance</p> <p>105 House and contents insurance (selected dwelling)</p> <p>Repairs and maintenance payments</p> <p>106 Repairs and maintenance – payments to contractors (materials and labour) (selected dwelling)</p> <p>107 Repair and maintenance (materials only) (selected dwelling)</p> <p>Other current housing costs</p> <p>108 Interest payments – loans for alterations and additions</p> <p>109 Body corporate payments</p>
FUEL AND POWER	<p>Electricity</p> <p>121 Electricity (selected dwelling)</p> <p>122 Electricity (other property)</p> <p>Gas</p> <p>123 Mains gas</p> <p>125 Bottled gas</p> <p>Other fuels</p> <p>126 Heating oil</p> <p>127 Kerosene and paraffin</p> <p>128 Wood for fuel</p> <p>129 Other fuels n.e.c.</p>
FOOD AND NON-ALCOHOLIC BEVERAGES	<p><i>Bakery products, flour and other cereals</i></p> <p>Bread</p> <p>151 Bread – home delivered</p> <p>152 Bread – not home delivered</p> <p>Flour</p> <p>153 Flour</p> <p>Cakes, biscuits, puddings</p> <p>154 Cakes, tarts, puddings (fresh or frozen)</p> <p>155 Biscuits</p> <p>156 Cake, biscuit, pudding and bread mixes</p> <p>Breakfast and other cereals</p> <p>157 Breakfast cereals</p> <p>158 Pasta (spaghetti, noodles, etc.)</p> <p>159 Rice</p> <p>160 Other cereals</p>

## APPENDIX A

FOOD AND NON-ALCOHOLIC  
BEVERAGES continued

### *Meat and seafood*

#### Processed meat (including ham, bacon and sausages)

- 161 Ham
- 162 Bacon
- 163 Canned meat (other than bacon and ham)
- 164 Sausages (not continental)
- 165 Processed meat (frozen)
- 166 Processed meat (not frozen or canned)

#### Beef and veal

- 167 Beef and veal

#### Mutton and lamb

- 168 Mutton and lamb

#### Pork

- 169 Pork (excluding bacon and ham)

#### Poultry and game

- 170 Poultry
- 171 Game

#### Other meat and meat undefined

- 172 Offal
- 173 Meat (not processed) n.e.c.
- 174 Meat undefined

#### Fish and other seafood

- 175 Fresh fish and other fresh seafood
- 176 Frozen fish and other frozen seafood
- 177 Canned and bottled fish, and other canned and bottled seafood
- 178 Processed fish and other processed seafood n.e.c.

### *Dairy products, eggs, edible oils and fats*

#### Fresh eggs

- 180 Fresh eggs

#### Fresh milk and cream

- 181 Fresh milk and cream – home delivered
- 182 Fresh milk and cream – not home delivered

#### Cheese

- 183 Cheese

#### Butter

- 184 Butter

#### Other dairy products

- 185 Powdered milk
- 186 Dairy products and eggs n.e.c.

#### Margarine

- 187 Margarine

#### Edible oils and fats n.e.c.

- 188 Edible oils and fats n.e.c.

## APPENDIX A

### FOOD AND NON-ALCOHOLIC BEVERAGES continued

#### *Fruit, nuts and vegetables*

##### **Fresh fruit**

- 189 Fresh citrus fruit
- 190 Fresh stone fruit
- 191 Fresh apples and pears
- 192 Fresh fruit n.e.c.
- 193 Fresh fruit undefined

##### **Canned, frozen and bottled fruit**

- 194 Canned, frozen and bottled fruit

##### **Dried fruit and nuts**

- 195 Dried fruit
- 197 Nuts

##### **Fresh potatoes**

- 198 Fresh potatoes

##### **Other fresh vegetables**

- 199 Fresh onions
- 200 Fresh root vegetables n.e.c.
- 201 Fresh tomatoes
- 202 Fresh vegetables n.e.c.
- 203 Fresh vegetables undefined

##### **Frozen vegetables**

- 204 Frozen vegetables

##### **Other processed vegetables and vegetables undefined**

- 205 Other processed vegetables
- 206 Vegetables undefined

#### *Miscellaneous food*

##### **Sugar**

- 207 Sugar

##### **Syrups, honey, jams and jellies**

- 208 Marmalades, jams and conserves
- 209 Honey
- 210 Syrups
- 211 Jellies and desserts n.e.c.

##### **Potato crisps and other savoury confectionery**

- 212 Potato crisps and other savoury confectionery

##### **Chocolate confectionery**

- 213 Chocolate confectionery

##### **Ice and other confectionery**

- 214 Ice confectionery (including ice cream)
- 215 Other confectionery

##### **Tea (packaged)**

- 216 Tea (packaged)

##### **Coffee (packaged)**

- 217 Coffee (packaged)

##### **Other food drinks**

- 218 Canned and packet soup
- 219 Proprietary food drinks n.e.c.

## APPENDIX A

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FOOD AND NON-ALCOHOLIC BEVERAGES	continued	<b>Other food and food undefined</b>
		220 Spices and herbs
		221 Sauces and salad dressings
		222 Spreads and mixes n.e.c.
		223 Food additives n.e.c.
		224 Baked beans and canned spaghetti
		225 Canned and bottled baby foods
		226 Frozen prepared meals
		227 Prepared meals n.e.c.
		229 Food n.e.c.
		230 Food undefined
		<i>Non-alcoholic beverages</i>
		<b>Soft drinks and aerated waters</b>
		231 Soft drinks and aerated waters
		<b>Fruit and vegetable juice</b>
		232 Fruit juice
		233 Vegetable juice
		234 Juices undefined
		<b>Other non-alcoholic beverages</b>
		235 Cordials
		236 Milk based beverages, not packaged/boxed, n.e.c.
		237 Non-alcoholic beverages undefined
		<i>Meals out and take-away foods</i>
		238 Meals in restaurants, hotels, clubs, etc.
		239 Snack, take-away foods (not frozen)
		240 School lunch money
ALCOHOLIC BEVERAGES		<b>Beer</b>
		261 Beer for consumption off licensed premises
		262 Beer for consumption on licensed premises
		263 Beer undefined
		<b>Wine</b>
		264 Wine for consumption off licensed premises
		265 Wine for consumption on licensed premises
		266 Wine undefined
		<b>Spirits</b>
		267 Spirits for consumption off licensed premises
		268 Spirits for consumption on licensed premises
		269 Spirits undefined
		<b>Other alcoholic beverages</b>
		270 Alcoholic beverages n.e.c. for consumption off licensed premises
		271 Alcoholic beverages n.e.c. for consumption on licensed premises
		272 Alcoholic beverages undefined
TOBACCO		<b>Tobacco</b>
		281 Cigarettes
		282 Other tobacco
		283 Other tobacco products

## APPENDIX A

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- CLOTHING AND FOOTWEAR
- Men's clothing
    - 301 Suits
    - 302 Coats
    - 303 Trousers (excluding jeans)
    - 304 Jeans
    - 305 Cardigans, jumpers, sweaters, pullovers
    - 306 Shirts
    - 307 Singlets, underpants and briefs
    - 308 Sleepwear
    - 309 Men's other clothing
    - 310 Men's clothing undefined
  - Women's clothing
    - 311 Trousers (excluding jeans), skirts, dresses and suits
    - 312 Jeans
    - 313 Coats
    - 314 Cardigans, jumpers, pullovers, sweaters, twinsets, etc.
    - 315 Foundation garments
    - 316 Singlets, spencers, slips, petticoats, briefs and underpants
    - 317 Sleepwear
    - 318 Women's other clothing
    - 319 Women's clothing undefined
  - Children's and infant's clothing
    - 320 Boys' singlets, underpants, briefs and sleepwear
    - 321 Boys' other clothing
    - 322 Girls' singlets, spencers, slips, petticoats, briefs, underpants and sleepwear
    - 323 Girls' other clothing
    - 324 Infants' clothing
    - 325 Children's clothing undefined
  - Headwear, hosiery, clothing accessories and clothing materials
    - 326 Men's hosiery
    - 327 Women's hosiery
    - 328 Children's and infants' hosiery
    - 329 Hats and other headwear
    - 330 Clothing accessories (e.g. ties, gloves, handkerchiefs)
    - 331 Clothing materials
    - 332 Haberdashery
    - 333 Clothing n.e.c. and undefined
  - Footwear
    - 334 Men's footwear
    - 335 Women's footwear
    - 336 Children's and infants' footwear
    - 337 Footwear undefined
  - Clothing and footwear services
    - 338 Dry cleaning and laundering of clothes
    - 339 Clothing repairs
    - 340 Footwear repairs
    - 341 Hire of clothing and footwear

## APPENDIX A

HOUSEHOLD FURNISHINGS AND EQUIPMENT	Furniture and floor coverings
	351 Kitchen furniture
	352 Bedroom furniture
	353 Lounge/dining room furniture
	354 Outdoor/garden furniture
	355 Other furniture
	356 Carpets
	357 Floor rugs, mats and matting
	358 Vinyl and other sheet floor coverings
	359 Floor tiles
	Blankets, travelling rugs, household linen and household furnishings
	360 Bed linen
	361 Blankets and travelling rugs
	362 Bed spreads and continental quilts
	363 Pillows and cushions
	364 Towels and face washers
	365 Table and kitchen linen
	366 Curtains
	367 Blinds
	368 Other household textiles
	369 Paintings, carvings and sculptures
	370 Other furnishings and ornaments
	Household appliances
	371 Cooking stoves, ovens, hot plates and ranges
	372 Refrigerators and freezers
	373 Washing machines
	374 Air-conditioners
	375 Dishwashers
	376 Clothes dryers
	377 Other electrical household appliances (including answering machines)
	378 Other non-electrical household appliances
	Glassware, tableware and household utensils
	380 Tableware (e.g. crockery)
	381 Glassware
	382 Cutlery
	383 Cooking utensils
	384 Cleaning utensils
	385 Kitchen utensils n.e.c.
	Tools, other household durables undefined
	386 Lawnmowers (including electric)
	387 Gardening tools
	388 Other tools
	389 Household durables n.e.c. and undefined

## APPENDIX A

HOUSEHOLD SERVICES AND OPERATION	Household non-durables
	401 Nails, screws and other fasteners
	402 Household soaps and detergents
	403 Household polishes
	404 Other household cleaning agents
	405 Paper products (tissue paper, serviettes, toilet paper)
	406 Trees, shrubs and plants
	407 Gardening products n.e.c.
	408 Swimming pool chemicals
	409 Household non-durables n.e.c. (including food wraps)
MEDICAL CARE AND HEALTH EXPENSES	410 Household non-durables undefined
	Postal charges
	411 Postal charges
	Telephone and telegram charges
	412 Telephone and telegram charges
	Household services
	413 Pest control services
	414 Gardening and private rubbish removal services
	415 Housekeeping and cleaning services (including ironing)
	416 Household services n.e.c.
	Child care services
	417 Child care services – institution (including pre year 1 education)
	418 Child care services n.e.c.
	419 Child care services undefined
	Household hire and maintenance expenses n.e.c.
	421 Carpet cleaning
	423 Repair and maintenance of soft furnishings
	424 Repair and maintenance of household appliances
	425 Repair and maintenance of tools
	426 Repair and maintenance of household durables n.e.c. and undefined
	428 Hire of tools
	430 Hire of household durables n.e.c.
	431 Household appliance repairs insurance
	Accident and health insurance
	451 Hospital, medical and dental insurance
	452 Ambulance insurance (separate insurance)
	453 Sickness and personal accident insurance
	Practitioner's Fees
	454 General practitioner doctor's fees
	455 Specialist doctor's fees
	456 Dental charges
	457 Optician's fees (including spectacles)
	458 Practitioner's fees n.e.c. (including physiotherapy and chiropractic fees)

## APPENDIX A

MEDICAL CARE AND HEALTH EXPENSES	continued	Medicines, pharmaceutical products, therapeutic appliances and equipment
		459 Prescriptions, appliances and equipment
		460 Proprietary pain relievers (powders, tablets, liquids etc.)
		461 Proprietary ointments and lotions
		462 Proprietary medicines n.e.c.
		463 Creams, tablets and medicines undefined
		464 Surgical dressings
		465 Therapeutic appliance and equipment
		466 Pharmaceutical products n.e.c.
		467 Medicines, pharmaceutical products undefined
		Other health charges
		468 Hospital charges
		469 Health charges n.e.c.
		471 Hire of therapeutic appliances
TRANSPORT		Motor vehicle purchase
		501 Purchase of motor vehicle (other than motor cycle)
		502 Purchase of motor cycle
		Other vehicle purchase
		503 Purchase of caravan (other than selected dwelling)
		504 Purchase of trailer
		505 Purchase of bicycle
		Motor vehicle fuel, lubricants and additives
		506 Petrol
		507 Diesel fuel
		508 LPG and other gas fuels
		509 Oils, lubricants and additives
		Vehicle registration and insurance
		510 Compulsory registration and insurance of motor vehicle (other than motor cycle)
		511 Other insurance of motor vehicle (other than motor cycle)
		512 Compulsory registration and insurance of motor cycle, caravan or trailer
		513 Other insurance of motor cycle, caravan or trailer
		Other running expenses of vehicles
		514 Batteries
		515 Tyres and tubes
		516 Motor vehicle electrical accessories (purchased separately) (including communications equipment)
		517 Vehicle parts n.e.c. (purchased separately)
		518 Vehicle accessories n.e.c. (purchased separately)
		519 Crash Repairs
		520 Vehicle servicing (including parts and labour)
		521 Drivers licence
		522 Parking fees
		523 Driving lessons
		524 Subscriptions to motor organisations
		525 Vehicle hire and leasing expenses (non-holiday)
		526 Vehicle charges including hire of accessories n.e.c.

## APPENDIX A

TRANSPORT	continued	Public transport fares
		527 Rail fares
		528 Bus and tram fares
		529 Water transport fares
		530 Combined bus/tram/rail/ferry fares
		531 Public transport fares undefined
		Other fare and freight charges
		532 Taxi fares
		533 Air fares
		534 Removalist fees
		535 Freight charges n.e.c.
RECREATION		Television and other audio-visual equipment
		551 Television
		552 Television aerial
		553 Radio/stereo/hi-fi equipment
		554 Video cassette recorder and equipment
		555 Home computer equipment and software
		556 TV games
		557 Blank video cassettes
		558 Pre-recorded video cassettes or discs
		559 Compact discs and records (audio)
		560 Audio-cassette and tapes
		561 Electronic components n.e.c. and undefined
		Books, newspapers, magazines and other printed material
		563 Books
		564 Newspapers (excluding specialist newspaper type magazines)
		565 Magazines and comics
		566 Other printed material
		Other recreational equipment
		567 Photographic equipment
		568 Photographic film and chemicals (including developing)
		569 Sunglasses (excluding optical)
		570 Optical goods n.e.c.
		571 Studio and other professional photography
		572 Musical instruments and accessories
		573 Purchase of boat
		574 Boat parts and accessories
		576 Toys
		577 Camping equipment
		578 Sport equipment n.e.c.
		579 Recreational equipment n.e.c. (including above ground pools)
		Gambling
		580 Lottery tickets
		581 Lotto type games and instant lotteries (scratch cards)
		582 TAB, on course betting etc.
		583 Poker machines and ticket machines
		584 Blackjack, roulette and other casino-type games
		585 Gambling n.e.c.
		586 Gambling undefined

## APPENDIX A

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### RECREATION continued

- Entertainment and recreational services**
- 587 Hire of television
  - 588 Hire of video cassette recorder
  - 589 Hire of video cassette tapes and TV games
  - 590 Membership of video cassette library
  - 591 Repairs to audio-visual equipment
  - 592 Repair insurance for audio-visual equipment
  - 593 Repair of optical and photographic equipment
  - 594 Repair of sports equipment
  - 595 Repair of other recreational equipment
  - 596 Registration and insurance of boat
  - 597 Health and fitness studio charges
  - 598 Sporting club subscriptions
  - 599 Squash court hire charges
  - 600 Ten pin bowling charges
  - 601 Skiing fees/fares
  - 602 Green fees (golf, bowls, croquet, etc.)
  - 603 Sports lessons
  - 604 Sport equipment hire
  - 605 Hire of other recreation equipment
  - 606 Sports services charges n.e.c.
  - 607 Spectator admission fees to sport
  - 608 Cinema admission charges
  - 609 Live theatre admission charges
  - 610 Admission fees/cover charges (dances, night clubs etc.)
  - 611 National park and zoo fees
  - 612 Art gallery and museum fees
  - 613 Day trips and other excursions n.e.c.
  - 614 Amusement arcade machines
  - 615 Clubs and association subscriptions (excluding sports clubs)
  - 616 Cultural and other non-sporting lessons
  - 617 Entertainment and recreational charges n.e.c. and undefined
- Animal Expenses**
- 619 Animal purchases
  - 620 Animal food
  - 621 Veterinary charges
  - 622 Animal minding charges
  - 623 Animal expenses and charges n.e.c.
- Holidays – Australia (selected expenses).**
- 624 Holiday air fares – Australia
  - 625 Holiday rail fares – Australia
  - 626 Holiday bus fares – Australia
  - 627 Other fares – Australia (including vehicle hire)
  - 628 Holiday petrol – Australia
  - 629 Holiday hotel/motel charges – Australia
  - 630 Holiday flat/house charges – Australia
  - 631 Caravan park fees/hire of caravan – Australia
  - 632 Other accommodation charges – Australia
  - 633 Airfare inclusive package tours – Australia
  - 634 Other package tours – Australia

## APPENDIX A

RECREATION	continued	Holidays – overseas (selected expenses)
		635 Holiday fares overseas – air
		636 Holiday fares overseas – other
		637 Holiday accommodation overseas – hotel/motel
		638 Holiday accommodation overseas – other
		639 Airfare inclusive package tour overseas
		640 Other package tour overseas
PERSONAL CARE		Toiletries and cosmetics
		661 Toothpaste, toothbrushes and other oral hygiene products
		662 Toilet soap
		663 Talcum powders and deodorants
		664 Toiletries and cosmetics n.e.c.
		665 Shavers, hairdryers and other personal toiletry products
		Hair dressing and beauty services
		666 Hair services (male)
		667 Hair services (female)
		668 Hair services undefined
		669 Personal care services n.e.c.
MISCELLANEOUS COMMODITIES AND SERVICES		Miscellaneous goods
		701 Watches and clocks
		702 Jewellery n.e.c.
		703 Travel goods, handbags, umbrellas, wallets etc.
		704 Pens, paper and stationery
		705 Stationery equipment n.e.c.
		706 Ice
		707 Miscellaneous commodities n.e.c.
		Interest payments on selected credit services (excluding mortgage payments for selected dwellings)
		708 Interest payments on fixed term loans and mortgages for other properties
		709 Interest payment on credit card purchases (goods and services)
		710 Interest payments on credit card cash advances
		Education fees
		711 Primary school fees (government)
		712 Primary school fees (independent)
		713 Secondary school fees (government)
		714 Secondary school fees (independent)
		715 Tertiary education fees (including HECS payments)
		716 Fees paid to other educational institutions
		717 Private education tuition fees
		Payments for other property
		718 General council rates – other property
		719 Other payments – other property (including rent, body corporate and insurance)

## APPENDIX A

MISCELLANEOUS COMMODITIES AND SERVICES continued	Miscellaneous services
	720 Government duties and charges separately identified
	721 Financial institution charges n.e.c.
	722 Alimony or maintenance payments
	723 Cash gifts, donations to charity
	724 Pocket money or allowance
	725 Union dues, professional association subscriptions
	726 Legal fees
	727 Fees n.e.c.
	728 Fines
	729 Personal belongings insurance
	731 Personal advertising, etc.
	732 Non-holiday accommodation
	734 Repair of miscellaneous goods
	735 Miscellaneous services n.e.c. (including travel insurance)
<b>SELECTED OTHER PAYMENTS</b>	
INCOME TAX	Income tax
	751 Income tax
MORTGAGE REPAYMENTS – PRINCIPAL (SELECTED DWELLING)	Mortgage repayments – principal
	752 Mortgage repayments – principal (selected dwelling)
OTHER CAPITAL HOUSING COSTS	Other capital housing costs
	753 Principal component of mortgage repayment for other property
	754 Purchase of selected dwelling or other property (excluding mortgage repayments but including outright purchase, deposit, net of sales)
	755 Additions/extensions
	756 Internal renovations
	757 Insulation
	758 Inground swimming pool
	759 Outside building
	760 Landscape contractor
	761 Outside improvements n.e.c.
	762 Other capital housing n.e.c.
SUPERANNUATION AND LIFE INSURANCE	Superannuation and life insurance
	771 Superannuation and annuities
	772 Life insurance

## APPENDIX B

### EXPENDITURE PATTERNS

This appendix gives the expenditure patterns used for the Spatial Price Index at the group, sub-group and expenditure class levels as derived from the Household Income and Expenditure Survey for Perth and the Spending and Income Survey for the Christmas and Cocos (Keeling) Islands.

Group, sub-group, expenditure class	Weights (percentage contribution to each Index)		
	Perth	Christmas Island	Cocos (Keeling) Islands
<b>Food</b>	<b>13.98</b>	<b>39.86</b>	<b>28.62</b>
Dairy products	1.52	1.90	1.43
Milk and cream	0.90	1.04	0.78
Cheese	0.36	0.21	0.31
Butter	0.05	0.04	0.06
Other dairy products	0.21	0.61	0.29
Cereal products	2.08	3.75	3.84
Bread	0.73	0.84	0.90
Cakes and biscuits	0.84	1.53	0.58
Breakfast cereals	0.29	0.21	0.26
Other cereal products	0.22	1.17	2.10
Meat and seafoods	3.04	5.66	3.80
Beef and veal	0.63	0.65	0.34
Lamb and mutton	0.46	0.38	0.54
Pork	0.19	0.64	0.02
Poultry	0.48	1.20	1.52
Bacon and ham	0.36	0.23	0.11
Processed meat	0.49	0.62	0.70
Fish	0.43	1.94	0.57
Fresh fruit and vegetables	1.84	3.93	5.02
Fresh fruit	0.88	1.95	2.50
Fresh potatoes	0.19	0.25	0.31
Other fresh vegetables	0.78	1.72	2.20
Processed fruit and vegetables	0.81	1.39	2.18
Processed fruit	0.18	0.17	0.58
Fruit juice	0.31	0.58	1.10
Processed vegetables	0.33	0.63	0.50
Soft drinks, ice cream and confectionery	2.49	3.28	5.25
Soft drinks and cordials	1.11	1.72	3.37
Ice cream and ice confectionery	0.30	0.38	0.53
Confectionery	1.08	1.19	1.36
Meals out and take-away foods	5.22	16.30	1.99
Meals out	2.86	13.38	1.38
Take-away foods	2.36	2.92	0.60
Other food	2.21	3.64	5.11
Eggs	0.14	0.46	0.45
Sugar	0.06	0.11	0.41
Jams, honey and sandwich spreads	0.19	0.15	0.17
Tea, coffee and food drinks	0.34	0.62	0.47
Food additives, sauces and spices	0.30	0.50	0.42
Margarine	0.14	0.09	0.15
Cooking oils and fats	0.08	0.47	0.63
Other food	0.96	1.25	2.43

## APPENDIX B

Group, sub-group, expenditure class	Weights (percentage contribution to each Index)		
	Perth	Christmas Island	Cocos (Keeling) Islands
<b>Clothing</b>	<b>5.63</b>	<b>2.98</b>	<b>2.53</b>
Men's and boy's clothing	1.33	0.64	0.33
Men's outer clothing	0.42	0.26	0.08
Men's knitwear	0.10	0.07	0.01
Men's shirts	0.33	0.11	0.09
Men's underwear, nightwear and socks	0.19	0.10	0.01
Boy's clothing	0.29	0.09	0.14
Women's and girl's clothing	2.32	1.07	0.99
Women's outer clothing	1.62	0.85	0.76
Women's knitwear	0.10	0.01	
Women's underwear nightwear and hosiery	0.29	--	
Girl's clothing	0.31	0.20	0.24
Fabrics and knitting wool	0.87	0.79	1.08
<b>Footwear</b>	<b>0.93</b>	<b>0.48</b>	<b>0.12</b>
Men's footwear	0.23	0.08	0.08
Women's footwear	0.55	0.23	0.05
Children's footwear	0.14	0.17	
Dry cleaning and shoe repairs	0.19	--	--
<b>Housing</b>	<b>14.20</b>	<b>6.51</b>	<b>19.56</b>
Rents	4.94	4.36	16.10
Privately-owned dwelling rents	2.47	--	
Government-owned dwelling rents	2.47	4.36	16.10
Home ownership	9.26	2.15	3.46
Mortgage interest charges	5.83	0.74	--
Local government rates and charges	2.12	0.41	--
House repairs and maintenance	0.88	0.91	3.42
House insurance	0.44	0.09	0.04
<b>Household equipment and operation</b>	<b>20.16</b>	<b>14.30</b>	<b>21.54</b>
<i>Fuel and light</i>	2.94	2.15	5.04
Electricity	2.03	1.86	3.60
Gas	0.63	0.27	1.41
Other fuel	0.28	0.02	0.03
<i>Furniture and floor coverings</i>	3.61	1.81	3.47
Furniture	2.69	1.54	3.09
Floor coverings	0.92	0.27	0.38
<i>Appliances</i>	2.07	1.88	3.00
<i>Household textiles</i>	1.34	0.27	0.26
Bedding	0.15	0.20	0.17
Towels, linen and curtains	1.19	0.07	0.09
<i>Household utensils and tools</i>	1.67	1.67	1.06
Tableware, glassware and cutlery	0.36	0.26	0.19
Kitchen and cooking utensils	0.42	0.58	0.64
Cleaning utensils	0.26	0.32	0.13
Tools	0.64	0.51	0.10

## APPENDIX B

Group, sub-group, expenditure class	Weights (percentage contribution to each Index)		
	Perth	Christmas Island	Cocos (Keeling) Islands
<i>Household supplies and services</i>			
Household cleaning agents	4.53	3.51	2.86
Household paper products	0.47	1.07	1.02
Other household non-durables	0.62	1.03	0.66
Stationery	1.00	0.49	0.54
Watches and clocks	0.56	0.35	0.27
Veterinary services	0.07	0.14	—
Pet foods	0.28	—	—
Travel goods	0.54	0.08	0.12
House contents insurance	0.21	0.16	0.16
Repairs to appliances	0.44	0.09	0.04
<i>Postal and telephone services</i>			
Postal services	2.35	2.18	5.09
Telephone services	0.21	0.37	0.18
<i>Consumer credit charges</i>			
Consumer credit charges	2.14	1.82	4.92
	1.65	0.83	0.76
<b>Transportation</b>			
<i>Private motoring</i>	<b>16.58</b>	<b>9.20</b>	<b>7.17</b>
Motor vehicles	15.95	9.20	7.17
Automotive fuel	4.69	1.13	-0.74
Vehicle insurance	5.01	2.54	2.31
Motoring charges	1.84	0.75	0.36
Tyres and tubes	1.01	0.59	0.45
Vehicle servicing, repairs and parts	0.32	0.44	0.20
Urban transport fares	3.10	3.74	4.59
	0.62	—	—
<b>Tobacco and alcohol</b>			
<i>Alcoholic drinks</i>	<b>5.01</b>	<b>6.70</b>	<b>2.39</b>
Beer	3.16	5.28	1.96
Wine	1.72	2.24	1.05
Spirits	0.75	1.11	0.56
Cigarettes and tobacco	0.70	1.94	0.36
	1.85	1.42	0.42
<b>Health and personal care</b>			
<i>Health services</i>	<b>7.27</b>	<b>5.21</b>	<b>4.34</b>
Hospital and medical services	4.14	2.14	2.79
Optical services	3.35	1.34	1.76
Dental services	0.21	0.33	0.55
<i>Personal care products</i>			
Personal care products	0.58	0.46	0.49
Pharmaceuticals	2.35	2.50	1.52
Toiletries and personal products	1.04	1.20	0.51
Hairdressing services	1.31	1.30	1.01
	0.78	0.58	0.02

## APPENDIX B

Group, sub-group, expenditure class	Weights (percentage contribution to each Index)		
	Perth	Christmas Island	Cocos (Keeling) Islands
<b>Recreation and education</b>	<b>11.93</b>	<b>15.78</b>	<b>13.90</b>
Books, newspapers and magazines	1.17	0.53	0.20
Recreation goods	3.15	3.96	3.71
Video and sound equipment	1.32	2.17	2.07
Records, cassettes and tapes	0.39	0.65	0.44
Sports and photographic equipment and toys	1.44	1.15	1.19
Holiday travel and accommodation	3.62	6.60	7.99
Holiday travel and accommodation in Australia	1.76	2.83	7.06
Holiday travel and accommodation overseas	1.86	3.77	0.93
Recreation services	2.47	2.47	0.88
Photographic services	0.23	—	0.14
Repairs to recreational goods	0.01	—	—
Entertainment	2.23	2.47	0.75
Education and childcare	1.52	2.22	1.11
Education fees	1.24	1.23	1.07
Child care fees	0.28	0.99	0.04

## GLOSSARY

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Age	Age refers to a person's age at last birthday.
Average weekly household expenditure	The average obtained when the estimated total weekly expenditure for a particular household group on a particular item is divided by the estimated number of households within that group. Note that the estimated number of households within a particular group include all households in that group, regardless of whether the household reported expenditure on the item of interest or not.
Broad commodity group	See expenditure commodity classification.
Children	Children are all persons aged under 15 years, or persons aged 15 to 20 years who are full time students, do not have a spouse or offspring of their own in the household and live with a parent, guardian or other relative in the household.
Consumer Price Index (CPI)	The CPI is a measure of the changes over time in the cost of a constant basket of goods and services representative of expenditure by employee households in Australian metropolitan areas.
Diary	The diary was a notebook in which each person aged 15 years and over who was usually resident in the selected dwelling recorded his or her daily expenditure over two weeks.
Employed persons	Employed persons comprise all those aged 15 years or over who:
	<ul style="list-style-type: none"><li>▪ worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm; or</li><li>▪ worked for one hour or more without pay in a family business or on a farm (i.e. unpaid family helper); or</li><li>▪ were employees who had a job in which they usually worked more than one hour per week but were not at work and were:<ul style="list-style-type: none"><li>• on paid leave; or</li><li>• on leave without pay for less than four weeks prior to the placement date; or</li><li>• stood down without pay because of bad weather or plant breakdown at their place of employment for less than four weeks prior to the placement date; or</li><li>• on strike or locked out; or</li><li>• receiving wages or salary while undertaking full-time study; or</li></ul></li><li>▪ were self employed or unpaid family helpers who usually worked more than one hour per week and were at work within four weeks prior to the placement date or were paid for part of the last four weeks during the reference week.</li></ul>
Employees	Employees are persons who work for a public or private employer, or who work for their own incorporated enterprises, in the job where they usually work the most hours.

## GLOSSARY

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Employee income	Employee income is the sum of usual weekly pay, average weekly receipts from leave loading and regular bonuses and the average weekly value of selected in-kind income from employers. Usual weekly pay equals the amount usually received for wages and salaries, tips, commissions, piecework payments, penalty payments, shift allowances, remuneration for time not worked (e.g. sick and holiday pay) and workers compensation paid through the payroll.
Estimated Resident Population (ERP)	The concept of estimated resident population links people to a place of usual residence. For the purposes of this study, usual residence is that place where each person has lived or intends to live for six months or more.
Expenditure	Expenditure is the cost of goods and services acquired during the reference period for private use, whether or not those goods were paid for or consumed. For example, goods purchased by bankcard are counted as expenditure at the time they were acquired rather than at the time the bankcard bill was paid.  Expenditure is net of refunds or expected refunds. For example, payments for health services are net of any refunds received or expected to be received.
	Information about most types of expenditure was obtained from a diary maintained by all persons aged 15 years and over in households selected in the sample. Some infrequent items of expenditure were collected on a recall, or last payment basis with the length of the recall period ranging from two years for house purchases to three months for health expenses.
	Appendix A provides a list of items of expenditure which comprise a particular expenditure group.
Expenditure commodity classification	The expenditure commodity classification is used to classify all expenditure recorded in the Survey. There are three additive levels of detail: <ul style="list-style-type: none"><li>▪ the broad level, which is comprised of 17 expenditure groups;</li><li>▪ the medium level, which disaggregates the broad level groups into 99 expenditure groups; and</li><li>▪ the fine level, which is the most detailed level of expenditure available and is comprised of 424 expenditure groups.</li></ul> For a full description of the expenditure commodity classification see Appendix A.
Expenditure pattern	The expenditure pattern is the distribution of expenditure as derived from the Perth HIES or the Spending and Income Survey, as appropriate. Expenditure patterns are also known as weighting patterns. Each group, subgroup and expenditure class has its own weight or measure of relative importance. In calculating the SPI, price differences for each expenditure class were combined using these weights.
Extended family	An extended family is a family which extends beyond the basic family structure to include other relatives. For the purposes of this Survey, all members of an extended must live in the same household. For example, a married couple living together with their dependent children and other relatives.

## GLOSSARY

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Fully responding households	Fully responding households are households which provided most of the required information for the Survey. This term includes households where missing information was clerically imputed and households where some of the missing information could not be imputed.
Goods caught or grown	Goods caught or grown refers to goods reported in the personal diaries which were either caught or grown for the householders' personal consumption. This includes items such as fish and other seafood, chickens, eggs, fruit, vegetables and firewood.
Government pensions and benefits	Government pensions and benefits are regular, recurring receipts paid by government to persons under social security and related government programs. They include pensions paid to aged persons, benefits paid to veterans and their survivors and study allowances for students.
Group questionnaire	The group questionnaire collected information on household characteristics, on detailed expenditure items (e.g. health service payments) and on irregular or infrequently occurring expenditure items.
Household	A household is a group of people who usually reside and eat together. This may be:
	<ul style="list-style-type: none"><li>▪ a one person household, that is, a person who makes provision for his or her own food or other essentials for living without combining with any other person; or</li><li>▪ a multi-person household, that is, a group of two or more persons, living within the same dwelling, who make common provision for food or other essentials for living.</li></ul>
Household composition	Composition of the household is divided into the following categories – person living alone, married/de facto couple only, married/de facto couple only living with their unmarried child(ren), one parent living only with his/her unmarried child(ren), extended families and other households.
Household Income and Expenditure Survey (HIES)	The Australian Household Income and Expenditure Survey collects detailed information about the expenditure, income and household characteristics of a sample of households resident in private dwellings in Australia. The Spending and Income Survey was based on the HIES conducted in 1993-94.
Income	Income is defined as regular and recurring receipts from all sources before deductions for income tax, superannuation, etc. at the time of the interview. Income can be negative in the case of business loss or where expenses for rental property are higher than income from that source.  Although most information about income was obtained on a current basis some was obtained for the previous financial year.  Certain receipts such as lump-sum receipts, windfall gains and withdrawals from savings are not considered regular and recurring for the purposes of this Survey, and are therefore excluded from the income estimates.
Income groups	Income groups are formed by ranking all households in terms of gross income and then dividing the households into three groups each containing one third of all households.
Individual questionnaire	The individual questionnaire collected information from each person aged 15 years and over on their income and personal characteristics (such as education and labour force status).

## GLOSSARY

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Negative expenditure	Negative expenditure is expenditure for which refunds (or trade-ins, sales or successful insurance claims for land, houses and cars) have exceeded the costs of acquisitions. For example, if a household sold a car in the 12 month recall period and did not buy a replacement car or bought a less expensive car, then the household would have negative expenditure on cars because sales were greater than the costs of acquisitions.
Negative income	Negative income is the income accrued from an unincorporated business or rental property for which operating expenses and depreciation have exceeded gross receipts.
Net expenditure	Net expenditure is expenditure from which refunds (or trade-ins, sales or successful insurance claims for land, houses and cars) have been deducted.
Non-responding households	Non-responding households include households which provided none of the required information (due to non-contact, language problems, death, illness or refusal).
Non-sampling error	Non-sampling error refers to a range of errors which affect the overall accuracy of survey estimates. Major sources of non-sampling error are non-response, misinterpretation of questions and incorrect transcription or coding of survey information.
Own business income	Own business income is the profit/loss that accrues to persons or households as owners of, or partners in, unincorporated enterprises. Profit/loss consists of the value of the gross output of the enterprise after the deduction of operating expenses and an allowance for depreciation of assets used in producing the output. Losses occur when operating expenses and depreciation are greater than gross receipts and are treated as negative income.
Principal source of income	Principal source of income is the single source from which the most income is received. For example, if a household received 45% of income from employee income, 35% from own business income and 20% from property income, the principal source of income would be employee income.
Private dwelling	Private dwellings are houses, flats, home units, caravans, garages, tents and other structures used as private places of residence at the time of the survey. These are distinct from special dwellings which include hotels, boarding houses and institutions.
Recall period	The recall period was used in the group questionnaire to define the period for which survey participants were asked to report their expenditure on specific goods and services. Recall periods varied between three months (e.g. furniture), 12 months (e.g. motor vehicles) and two years (house purchases).
Region	A region is a geographical area which was used for data collection. Regions were defined based on logical groupings of where people live on the Islands. There were six regions on Christmas Island (Kampong, Settlement, Silver City, Drumsite, Poon Saan <sup>1</sup> and Poon Saan(other) <sup>2</sup> ) and two on the Cocos (Keeling) Islands (Home Island and West Island).
Relative standard error	The relative standard error is the standard error expressed as a percentage of the estimate for which it was calculated. It is a measure which is independent of both the size of the estimate, and the unit of measurement and as a result, can be used to compare the reliability of different estimates.
Reporting period	The reporting period is the two week period over which survey participants reported expenditure in the diary.

## **GLOSSARY**

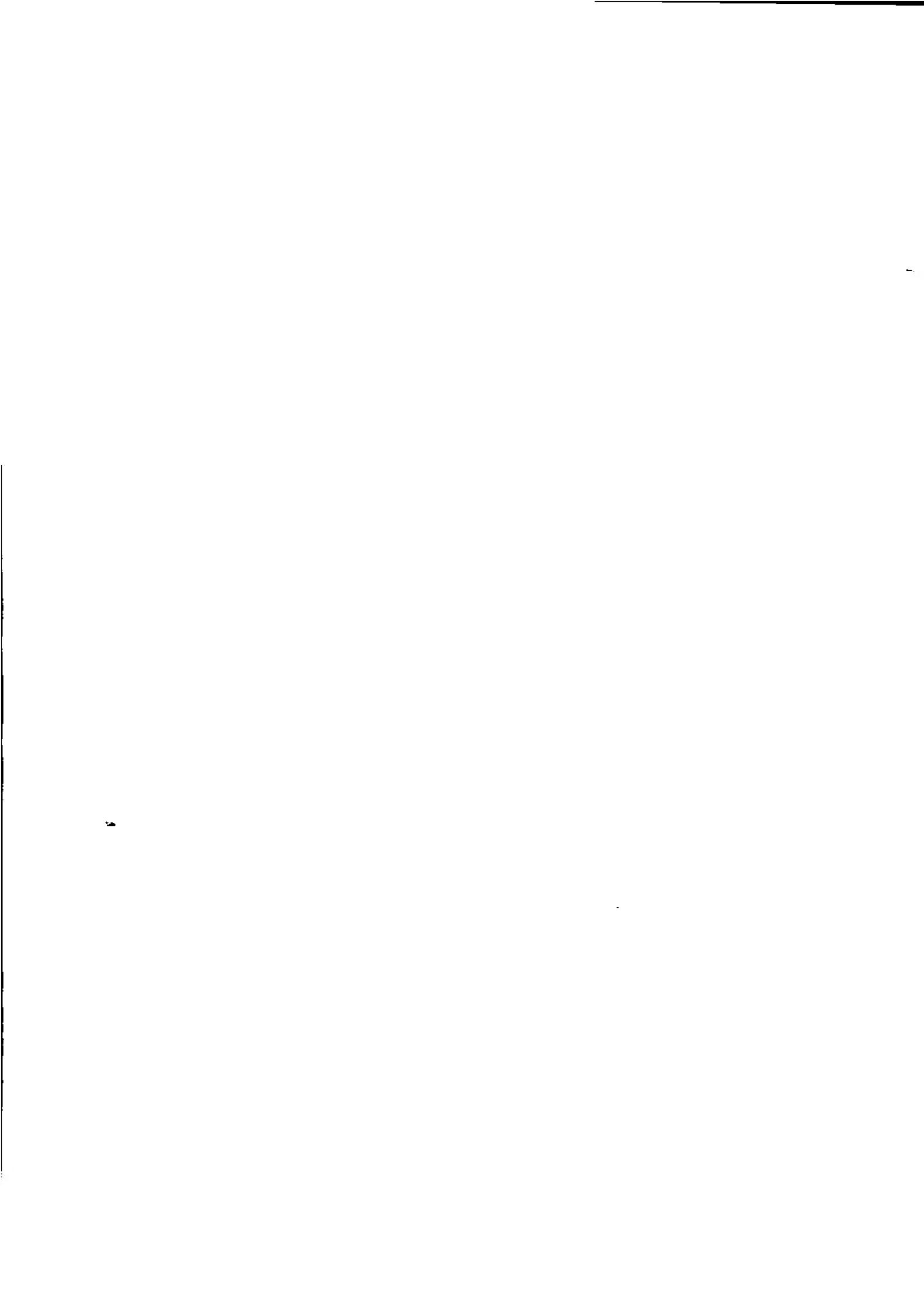
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Sample loss	Sample loss refers to the loss of selected units due to the dwelling containing households out of scope (e.g. households where all major spenders had been living on the Islands for less than six months), dwellings being vacant, under construction or demolished.
Spatial Price Index (SPI)	A Spatial Price Index is simply a number, the magnitude of which reflects the cost of purchasing a fixed basket of goods and services in one location relative to the cost of purchasing the same fixed basket of goods and services in another location. The SPI is categorised into eight groups: food, clothing, housing, transportation, tobacco and alcohol, health and personal care, and recreation and education. These groups are further divided into subgroups, then again into expenditure classes. For further information see Appendix B.
Spender	A spender is any household member aged 15 years or over.
Standard error	The standard error is a measure of the likely difference between estimates obtained in a sample survey and estimates which would have been obtained if the whole population was enumerated. The magnitude of the standard error associated with any survey is a function of sample design, sample size and population variability.
Tenure type	Tenure was determined according to whether the selected dwelling is owned outright, in the process of being bought, being rented either privately or through the government, or occupied rent free.
Usual residents	The usual residents of a private dwelling are those persons who usually live in that particular dwelling, and regard it as their own or main home
Weights	Weights are values by which information for sample households is multiplied to produce estimates for the whole population.
<b>ENDNOTES</b>	<p><sup>1</sup> Comprised mainly of persons of Chinese origin. <sup>2</sup> Comprised only of casino workers' quarters, including Taman Sweetland.</p>

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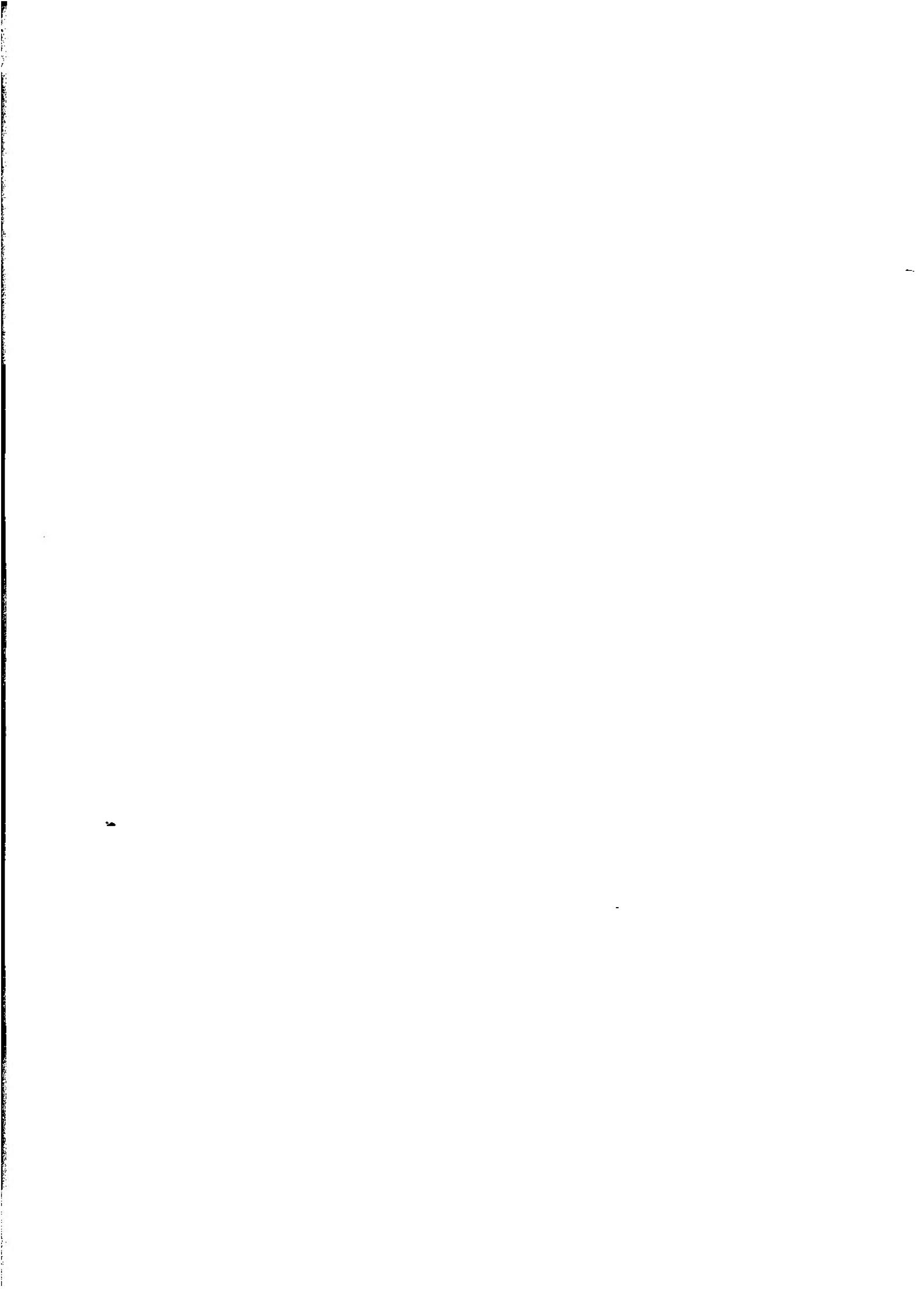
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